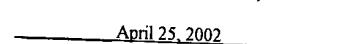




IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Ashkenazi et al.) Group Art Unit Unknown
Appl. No. : 10/017,086)
Filed : October 24, 2001)
For : SECRETED AND
TRANSMEMBRANE
POLYPEPTIDES AND NUCLEIC
ACIDS ENCODING THE SAME)
Examiner : Unknown)
I hereby certify that this correspondence and all
marked attachments are being deposited with the
United States Postal Service as first-class mail in
an envelope addressed to: Commissioner for
Patents, Washington, D.C. 20231, on
April 25, 2002
(Date)

Ginger R. Dreger, Reg. No. 33,055

SEQUENCE SUBMISSION STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

This is in response to the Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures, mailed April 2, 2002. I hereby state that the amendments, made in accordance with 37 C.F.R. § 1.825(a) and included in the Substitute Sequence Listing submitted herewith, are supported in the application, and that the Substitute Sequence Listing does not include new matter.

I further state that the information recorded in the currently submitted substitute copy of the computer-readable form of the Sequence Listing is identical to the paper form of the Sequence Listing submitted herewith as required in 37 C.F.R. § 1.825(b).

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410

Respectfully submitted

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: April 25, 2002

B-1

Ginger R. Dreger
Registration No. 33,055
Attorney of Record
620 Newport Center Drive, 16th Floor
Newport Beach, CA 92660
(415) 954-4114



#5

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Gerber, Hanspeter
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
Hillan, Kenneth J
Kljavin, Ivar J.
Kuo, Sophia S.
Napier, Mary A.
Pan, James;
Paoni, Nicholas F.
Roy, Margaret Ann
Shelton, David L.
Stewart, Timothy A.
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Williams, P. Mickey
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Val Val Ala Gly Ala Ile Ala Ala Val Phe His Thr Leu Ile Ala
95 100 105

Tyr Ser Asp Leu Gly Tyr Tyr Ile Ile Asn Lys Leu His His Val
110 115 120

Asp Glu Ser Val Gly Ser Lys Thr Arg Arg Ala Phe Leu Tyr Leu
125 130 135

Ala Ala Phe Pro Phe Met Asp Ala Met Ala Trp Thr His Ala Gly
140 145 150

Ile Leu Leu Lys His Lys Tyr Ser Phe Leu Val Gly Cys Ala Ser
155 160 165

Ile Ser Asp Val Ile Ala Gln Val Val Phe Val Ala Ile Leu Leu
170 175 180

His Ser His Leu Glu Cys Arg Glu Pro Leu Leu Ile Pro Ile Leu
185 190 195

Ser Leu Tyr Met Gly Ala Leu Val Arg Cys Thr Thr Leu Cys Leu
200 205 210

Gly Tyr Tyr Lys Asn Ile His Asp Ile Ile Pro Asp Arg Ser Gly
215 220 225

Pro Glu Leu Gly Gly Asp Ala Thr Ile Arg Lys Met Leu Ser Phe
230 235 240

Trp Trp Pro Leu Ala Leu Ile Leu Ala Thr Gln Arg Ile Ser Arg
245 250 255

Pro Ile Val Asn Leu Phe Val Ser Arg Asp Leu Gly Gly Ser Ser
260 265 270

Ala Ala Thr Glu Ala Val Ala Ile Leu Thr Ala Thr Tyr Pro Val
275 280 285

Gly His Met Pro Tyr Gly Trp Leu Thr Glu Ile Arg Ala Val Tyr
290 295 300

Pro Ala Phe Asp Lys Asn Asn Pro Ser Asn Lys Leu Val Ser Thr
305 310 315

Ser Asn Thr Val Thr Ala Ala His Ile Lys Lys Phe Thr Phe Val
320 325 330

Cys Met Ala Leu Ser Leu Thr Leu Cys Phe Val Met Phe Trp Thr
335 340 345

Pro Asn Val Ser Glu Lys Ile Leu Ile Asp Ile Ile Gly Val Asp
350 355 360

Phe Ala Phe Ala Glu Leu Cys Val Val Pro Leu Arg Ile Phe Ser
365 370 375

Phe Phe Pro Val Pro Val Thr Val Arg Ala His Leu Thr Gly Trp
380 385 390

Leu Met Thr Leu Lys Lys Thr Phe Val Leu Ala Pro Ser Ser Val
395 400 405

Leu Arg Ile Ile Val Leu Ile Ala Ser Leu Val Val Leu Pro Tyr
410 415 420

Leu Gly Val His Gly Ala Thr Leu Gly Val Gly Ser Leu Leu Ala
425 430 435

Gly Phe Val Gly Glu Ser Thr Met Val Ala Ile Ala Ala Cys Tyr
440 445 450

Val Tyr Arg Lys Gln Lys Lys Met Glu Asn Glu Ser Ala Thr
455 460 465

Glu Gly Glu Asp Ser Ala Met Thr Asp Met Pro Pro Thr Glu Glu
470 475 480

Val Thr Asp Ile Val Glu Met Arg Glu Glu Asn Glu
485 490

<210> 8
<211> 535
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 33, 66, 96, 387
<223> unknown base

<400> 8
cctgacagaa gtgccccgga gctgggggag atncaacatt aagaagatgc 50
tgagcttctg gtgccnttg gctctaattc tggccacaca gagaancagt 100
cgccctattt tcaaccttctt tgttcccg gacccttgggt gcagttctgc 150
agccacagag gcagtggcga ttttgacagc cacataccct gtgggtcaca 200
tgccataacgg ctgggtgacg gaaatccgtg ctgtgtatcc tgcttcgac 250
aagaataacc ccagcaacaa actggtgagc acgagcaaca cagtcacggc 300
ggcccacatc aagaagttca cttcgtctg catggctctg tcactcacgc 350
tctgtttcgt gatgttttg acacccaacg tgtctgngaa aatcttgata 400
gacatcatcg gagtggactt tgccttgca gaactctgtg ttgttcctt 450
gcggatcttc tccttcttcc cagttccagt cacagtgagg ggcgcacatca 500
ccgggtggct gatgacactg aagaaaaacct tcgtc 535

<210> 9
<211> 434
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 32, 54, 80, 111, 117, 122, 139, 193, 205, 221, 226, 228, 273,
293, 296, 305, 336, 358, 361
<223> unknown base

<400> 9
tgacggaatc ccgggctggg tatcctggtt tngacaagat aaaccccccag 50
caanaaaattt gggagcaggg caaaacagtn acgggcagcc cacatcaaga 100
agttcacctt ngtttgnatg gntctgtcaa ctcacgctnt gtttcgtat 150
gttttggaca cccaaagtgt ttgagaaaat tttgatagac atnatcgag 200
tggantttgc ctttgcagaa ntttgnntg ttccttgcg gatttctcc 250
tttttcccaag ttccagtcac agngagggcg catctcaccg ggnggntgat 300

gacantgaag aaaacctttg tccttgcccc cagctnttg gtgcggatca 350
ttgtcctnat ngccagcctt gtggtcctac cctacctggg ggtgcacggt 400
gcgaccctgg gcgtgggttc cctcctggcg ggca 434

<210> 10
<211> 154
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 33, 49, 68, 83, 90, 98, 119
<223> unknown base

<400> 10
tattcccagt tccggtcacg gggagggcgc atntcaccgg gtggctgang 50
acactgaaga aaacctntgt ccttgccccc agntttgtgn tgccgatnat 100
cgtccctcatc gccagcctng tggcctacc ctacctgggg gtgcacggtg 150
agac 154

<210> 11
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 11
ctgatccgt tcttggtgcc cctg 24

<210> 12
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 12
gctctgtcac tcacgctc 18

<210> 13
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 13
tcatctttc cctctccc 18

<210> 14
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 14
ccttccgcca cggagttc 18

<210> 15
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 15
ggcaaagtcc actccgatga tgtc 24

<210> 16
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 16
gcctgctgtg gtcacaggc tccg 24

<210> 17
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 17
tcggggagca ggccttgaac cggggcattt ctgtgtcaa ggagg 45

<210> 18
<211> 1901
<212> DNA
<213> Homo sapiens

<400> 18
cccccgcc cggcgccggg cggccgaagc cgggagccac cgccatgggg 50

gcctgcctgg gagcctgctc cctgctcagc tgcgcttcct gcctctgcgg 100

ctctgccccc tgcatcctgt gcagctgctg ccccgccagc cgcaactcca 150

ccgtgagccg cctcatcttc acgttcttcc tcttcctggg ggtgctggtg 200
tccatcatta tgctgagccc gggcggtggag agtcagctct acaagctgcc 250
ctgggtgtgt gaggaggggg ccgggatccc caccgtcctg cagggccaca 300
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gcaggtggca gcctgtgagg gccgggcctt tgacaacgag caggacggcg 1200
tcacctacag ctactccttc ttccacttct gcctggtgct ggcctcactg 1250
cacgtcatga tgacgctcac caactggtag aagcccggtg agacccggaa 1300
gatgatcagc acgtggaccg ccgtgtgggt gaagatctgt gccagctggg 1350
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agggctccct tgtcctcagg ctccacggga gcggggctgc tggagagagc 1750
ggggactcc caccacagtg gggcatccgg cactgaagcc ctggtgttcc 1800
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ctgagtctct aagactttt ctaataaaaca agccagtgcg tgtaaaaaaaa 1900
a 1901

<210> 19
<211> 457
<212> PRT
<213> Homo sapiens

<400> 19
Met Gly Ala Cys Leu Gly Ala Cys Ser Leu Leu Ser Cys Ala Ser
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Cys Leu Cys Gly Ser Ala Pro Cys Ile Leu Cys Ser Cys Cys Pro
20 25 30

Ala Ser Arg Asn Ser Thr Val Ser Arg Leu Ile Phe Thr Phe Phe
35 40 45

Leu Phe Leu Gly Val Leu Val Ser Ile Ile Met Leu Ser Pro Gly
50 55 60

Val Glu Ser Gln Leu Tyr Lys Leu Pro Trp Val Cys Glu Glu Gly
65 70 75

Ala Gly Ile Pro Thr Val Leu Gln Gly His Ile Asp Cys Gly Ser
80 85 90

Leu Leu Gly Tyr Arg Ala Val Tyr Arg Met Cys Phe Ala Thr Ala
95 100 105

Ala Phe Phe Phe Phe Thr Leu Leu Met Leu Cys Val Ser
110 115 120

Ser Ser Arg Asp Pro Arg Ala Ala Ile Gln Asn Gly Phe Trp Phe
125 130 135

Phe Lys Phe Leu Ile Leu Val Gly Leu Thr Val Gly Ala Phe Tyr
140 145 150

Ile Pro Asp Gly Ser Phe Thr Asn Ile Trp Phe Tyr Phe Gly Val
155 160 165

Val Gly Ser Phe Leu Phe Ile Leu Ile Gln Leu Val Leu Leu Ile
170 175 180

Asp Phe Ala His Ser Trp Asn Gln Arg Trp Leu Gly Lys Ala Glu
185 190 195

Glu Cys Asp Ser Arg Ala Trp Tyr Ala Gly Leu Phe Phe Phe Thr
200 205 210

Leu Leu Phe Tyr Leu Leu Ser Ile Ala Ala Val Ala Leu Met Phe
215 220 225

Met Tyr Tyr Thr Glu Pro Ser Gly Cys His Glu Gly Lys Val Phe
230 235 240

Ile Ser Leu Asn Leu Thr Phe Cys Val Cys Val Ser Ile Ala Ala
245 250 255

Val Leu Pro Lys Val Gln Asp Ala Gln Pro Asn Ser Gly Leu Leu
260 265 270

Gln Ala Ser Val Ile Thr Leu Tyr Thr Met Phe Val Thr Trp Ser
275 280 285

Ala Leu Ser Ser Ile Pro Glu Gln Lys Cys Asn Pro His Leu Pro
290 295 300

Thr Gln Leu Gly Asn Glu Thr Val Val Ala Gly Pro Glu Gly Tyr
305 310 315

Glu Thr Gln Trp Trp Asp Ala Pro Ser Ile Val Gly Leu Ile Ile
320 325 330

Phe Leu Leu Cys Thr Leu Phe Ile Ser Leu Arg Ser Ser Asp His
335 340 345

Arg Gln Val Asn Ser Leu Met Gln Thr Glu Glu Cys Pro Pro Met
350 355 360

Leu Asp Ala Thr Gln Gln Gln Gln Gln Val Ala Ala Cys Glu
365 370 375

Gly Arg Ala Phe Asp Asn Glu Gln Asp Gly Val Thr Tyr Ser Tyr
380 385 390

Ser Phe Phe His Phe Cys Leu Val Leu Ala Ser Leu His Val Met
395 400 405

Met Thr Leu Thr Asn Trp Tyr Lys Pro Gly Glu Thr Arg Lys Met
410 415 420

Ile Ser Thr Trp Thr Ala Val Trp Val Lys Ile Cys Ala Ser Trp
425 430 435

Ala Gly Leu Leu Leu Tyr Leu Trp Thr Leu Val Ala Pro Leu Leu
440 445 450

Leu Arg Asn Arg Asp Phe Ser
455

<210> 20
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 20
ggcgccat cttcacgttc ttcc 24

<210> 21
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 21
tcatccagct ggtgctgctc 20

<210> 22
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 22
cttcttccac ttctgcctgg 20

<210> 23
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 23
cctggggaaa aatgcaac 18

<210> 24
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 24
caggaatgta gaaggcaccc acgg 24

<210> 25
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 25
tggcacagat cttcacccac acgg 24

<210> 26
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
tgtccatcat tatgctgagc ccgggcgtgg agagtcagct ctacaagctg 50

<210> 27
<211> 1351
<212> DNA
<213> Homo sapiens

<400> 27
gagcgaggcc gggactgaa ggtgtgggtg tcgagccctc tggcagaggg 50
ttaacctggg tcaaatgcac ggattctcac ctcgtacagt tacgctctcc 100
cgcggcacgt ccgcgaggac ttgaagtccct gagcgctcaa gtttgcgt 150
aggtcgagag aaggccatgg aggtgccgcc accggcaccg cggagcttc 200
tctgttagagc attgtgccta tttccccgag tctttgctgc cgaagctgtg 250
actgccgatt cggaagtccct tgaggagcgt cagaagcggc ttccctacgt 300
cccagagccc tattacccgg aatctggatg ggaccgcctc cgggagctgt 350
ttggcaaaga tgaacacgcag agaatttcaa aggaccttgc taatatctgt 400
aagacggcag ctacacgcagg catcattggc tgggtgtatg gggaaatacc 450
agcttttatt catgctaaac aacaatacat tgagcagagc caggcagaaa 500
tttatcataa ccggtttgc gctgtcaat ctgcacatcg tgctgccaca 550
cgaggcttca ttgcgttatgg ctggcgctgg ggttggagaa ctgcagtgtt 600
tgtgactata ttcaacacag tgaacactag tctgaatgta taccgaaata 650
aagatgcctt aagccattt gtaattgcag gagctgtcac gggaaatctt 700
tttaggataa acgtaggcct gcgtggcctg gtggctggtg gcataattgg 750
agccttgctg ggcactcctg taggaggcct gctgatggca tttcagaagt 800

acgctggta gactgttcag gaaagaaaac agaaggatcg aaaggcactc 850
catgagctaa aactggaaga gtggaaaggc agactacaag ttactgagca 900
cctccctgag aaaattgaaa gtagttacg ggaagatgaa cctgagaatg 950
atgctaagaa aattgaagca ctgctaaacc ttcctagaaa cccttcagta 1000
atagataaac aagacaagga ctgaaagtgc tctgaacttg aaactcactg 1050
gagagctgaa gggagctgcc atgtccgatg aatgccaaca gacaggccac 1100
tctttggtca gcctgctgac aaatttaagt gctggcacct gtggtggcag 1150
tggcttgctc ttgtctttt ctttcttt taactaagaa tggggctgtt 1200
gtactctcac tttacttac cttaaattta aatacatact tatgtttgta 1250
ttaatctatc aatatatgca tacatggata tatccaccca cctagattt 1300
aagcagtaaa taaaacattt cgcaaaagat taaagttgaa tttacagtt 1350

t 1351

<210> 28
<211> 285
<212> PRT
<213> Homo sapiens

<400> 28

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Leu	Cys	Leu	Phe	Pro	Arg	Val	Phe	Ala	Ala	Glu	Ala	Val	Thr	Ala
									25					30

Asp	Ser	Glu	Val	Leu	Glu	Glu	Arg	Gln	Lys	Arg	Leu	Pro	Tyr	Val
									40					45

Pro	Glu	Pro	Tyr	Tyr	Pro	Glu	Ser	Gly	Trp	Asp	Arg	Leu	Arg	Glu
									50			55		60

Leu	Phe	Gly	Lys	Asp	Glu	Gln	Gln	Arg	Ile	Ser	Lys	Asp	Leu	Ala
									65			70		75

Asn	Ile	Cys	Lys	Thr	Ala	Ala	Thr	Ala	Gly	Ile	Ile	Gly	Trp	Val
									80			85		90

Tyr	Gly	Gly	Ile	Pro	Ala	Phe	Ile	His	Ala	Lys	Gln	Gln	Tyr	Ile
									95			100		105

Glu	Gln	Ser	Gln	Ala	Glu	Ile	Tyr	His	Asn	Arg	Phe	Asp	Ala	Val
									110			115		120

Gln	Ser	Ala	His	Arg	Ala	Ala	Thr	Arg	Gly	Phe	Ile	Arg	Tyr	Gly
									125			130		135

Trp Arg Trp Gly Trp Arg Thr Ala Val Phe Val Thr Ile Phe Asn
140 145 150

Thr Val Asn Thr Ser Leu Asn Val Tyr Arg Asn Lys Asp Ala Leu
155 160 165

Ser His Phe Val Ile Ala Gly Ala Val Thr Gly Ser Leu Phe Arg
170 175 180

Ile Asn Val Gly Leu Arg Gly Leu Val Ala Gly Gly Ile Ile Gly
185 190 195

Ala Leu Leu Gly Thr Pro Val Gly Gly Leu Leu Met Ala Phe Gln
200 205 210

Lys Tyr Ala Gly Glu Thr Val Gln Glu Arg Lys Gln Lys Asp Arg
215 220 225

Lys Ala Leu His Glu Leu Lys Leu Glu Glu Trp Lys Gly Arg Leu
230 235 240

Gln Val Thr Glu His Leu Pro Glu Lys Ile Glu Ser Ser Leu Arg
245 250 255

Glu Asp Glu Pro Glu Asn Asp Ala Lys Lys Ile Glu Ala Leu Leu
260 265 270

Asn Leu Pro Arg Asn Pro Ser Val Ile Asp Lys Gln Asp Lys Asp
275 280 285

<210> 29

<211> 324

<212> DNA

<213> Homo sapiens

<400> 29

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ctattacccg gaatctggat gggaccgctc cgggagctgt ttggcaaaga 100

tgaacagcag agaatttcaa aggacctgc taatatctgt aagacggcag 150

ctacagcagg catcattggc tgggtgtatg gggaaatacc agcttttatt 200

catgctaaac aacaatacat tgagcagagc caggcagaaa tttatcataa 250

ccggtttcatg gctgtcaat ctgcacatcg tgctgccaca cgaggctca 300

ttcgttcatg gctggcgccg aacc 324

<210> 30

<211> 377

<212> DNA

<213> Homo sapiens

<220>

<221> unsure
<222> 262, 330, 371
<223> unknown base

<400> 30
tcaagtttgt ccgttaggtcg agagaaggcc atggaggtgc cgccacceggc 50
accgcggagc tttttctgt agagcattgt gcctattcc ccgagtttt 100
gctgccgaag ctgtgactgc cgattcgaa gtccttgagg agcgtcagaa 150
gcggcttccc tacgtcccag agccctatta cccggaattt ggatgggacc 200
gcctccggga gctgttgcc aaagatgaac agcagagaat ttcaaaggac 250
cttgctgata tntgtaagac ggcagctaca gcaggcatca ttggctgggt 300
gtatggggga ataccagctt ttattcatgn taaaacaacaa tacattgagc 350
agagccaggc agaaatttat nataacc 377

<210> 31
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 31
tcgtacagtt acgctctccc 20

<210> 32
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 32
cttgaggagc gtcagaagcg 20

<210> 33
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 33
ataacgaatg aagcctcggt 20

<210> 34
<211> 40
<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 34

gctaatatct gtaagacggc agctacagca ggcatttcattt 40

<210> 35

<211> 1819

<212> DNA

<213> Homo sapiens

<400> 35

gagccgcccgc cgcgcgcgcg ccgcgcactg cagccccagg ccccgcccc 50

ccacccacgt ctgcgttgct gccccgcctg ggccaggcccc caaaggcaag 100

gacaaagcag ctgtcaggga acctccgcgg gagtcgaatt tacgtgcagc 150

tgcggcaac cacaggttcc aagatggttt gcgggggctt cgcgtgttcc 200

aagaactgcc tgtgcgcctt caacctgctt tacaccttgg ttagtctgct 250

gctaatttggaa attgctgcgt ggggcattgg cttcgggctt atttccagtc 300

tccgagtggc cggcgtggtc attgcagtgg gcatcttctt gttcctgatt 350

gctttatgg gtctgattgg agctgtaaaa catcatcagg tggtgttatt 400

tttttatatg attattctgt tacttgttatt tattgttcag ttttctgtat 450

cttgcgccttgc tttagccctg aaccaggagc aacagggtca gcttctggag 500

gttgggttggaa acaatacggc aagtgcgtca aatgacatcc agagaaatct 550

aaactgctgt gggttccgaa gtgttaaccc aaatgacacc tgtctggcta 600

gctgtgttaa aagtgaccac tcgtgctcgc catgtgctcc aatcatagga 650

gaatatgctg gagaggtttt gagatttggt ggtggcattt gcctgttctt 700

cagtttaca gagatcctgg gtgtttggct gacctacaga tacaggaacc 750

agaaaagaccc ccgcgcgaat cctagtgcatt tccttgcattt agaaaacaag 800

gaagatttcc ttgcgttata tgatcttggt cactttctgt aattttctgt 850

taagctccat ttgcgcgttt aaggaaggaa acactatctg gaaaagtacc 900

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cctttcttag cattttacc tgcagaaaaa ctttgcattgg taccactgtg 1100

ttggttatat ggtgaatctg aacgtacatc tcactggat aattatatgt 1150
agcactgtgc tggtagata gttcctactg gaaaaagagt gaaaatttat 1200
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tataaaaatg ataatttact tggtagtctt tatgattaca ccaatgtatt 1350
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ttctcagtagt tgtaacagca acttgtcaaa cctaagcata tttgaatatg 1700
atctccata atttgaatt gaaatcgat tgggtggctc tgtatattct 1750
gttaaaaaat taaaggacag aaaccttct ttgtgtatgc atgtttgaat 1800
taaaagaaag taatggaag 1819

<210> 36

<211> 204

<212> PRT

<213> Homo sapiens

<400> 36
Met Val Cys Gly Gly Phe Ala Cys Ser Lys Asn Cys Leu Cys Ala
1 5 10 15
Leu Asn Leu Leu Tyr Thr Leu Val Ser Leu Leu Leu Ile Gly Ile
20 25 30
Ala Ala Trp Gly Ile Gly Phe Gly Leu Ile Ser Ser Leu Arg Val
35 40 45
Val Gly Val Val Ile Ala Val Gly Ile Phe Leu Phe Leu Ile Ala
50 55 60
Leu Val Gly Leu Ile Gly Ala Val Lys His His Gln Val Leu Leu
65 70 75
Phe Phe Tyr Met Ile Ile Leu Leu Val Phe Ile Val Gln Phe
80 85 90
Ser Val Ser Cys Ala Cys Leu Ala Leu Asn Gln Glu Gln Gln Gly
95 100 105

Gln Leu Leu Glu Val Gly Trp Asn Asn Thr Ala Ser Ala Arg Asn
110 115 120
Asp Ile Gln Arg Asn Leu Asn Cys Cys Gly Phe Arg Ser Val Asn
125 130 135
Pro Asn Asp Thr Cys Leu Ala Ser Cys Val Lys Ser Asp His Ser
140 145 150
Cys Ser Pro Cys Ala Pro Ile Ile Gly Glu Tyr Ala Gly Glu Val
155 160 165
Leu Arg Phe Val Gly Gly Ile Gly Leu Phe Phe Ser Phe Thr Glu
170 175 180
Ile Leu Gly Val Trp Leu Thr Tyr Arg Tyr Arg Asn Gln Lys Asp
185 190 195
Pro Arg Ala Asn Pro Ser Ala Phe Leu
200

<210> 37
<211> 390
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 20, 35, 61, 83, 106, 130, 133, 187, 232, 260, 336
<223> unknown base

<400> 37
tgattggagc tgtaaaaaan tcttcaggtg ttgttnattt tttatatgtat 50
tattctgtaa nttgtattta ttgttcagtt ttntgtatct tgcgccttgtt 100
tagccntgaa ccaggagcaa cagggtcagn ttntggaggt tggttggaac 150
aatacggcaa gtgctcgaaa tgacatccag agaaatntaa actgctgtgg 200
gttccgaagt gttAACCAA atgacacctg tntggcttagc tgtgttaaaa 250
gtgaccactn gtgctcgcca tgtgctccaa tcataggaga atatgctgga 300
gaggtttga gatttggatgg tggcatggc ctgttnttca gttttacaga 350
gatcctgggt gtttggctga cctacagata caggaaccag 390

<210> 38
<211> 566
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 27

<223> unknown base

<400> 38
aatcccaaattt tcccccaattt ttttggncctt tttagggaaa gatgtgttgt 50
ggtaaaaagt gttagttataa aaatgataat ttacttgtag tcttttatga 100
ttacaccaat gtattctaga atagttatgt cttaggaaat tgtggttaa 150
ttttgactt ttacaggtaa gtgcaaagga gaagtggttt catgaaatgt 200
tctaattgtat aataacattt accttcagcc tcccatcaga atgaaacgag 250
ttttgagtaa tccaggaagt atatctatat gatcttgata ttgtttata 300
taatttgaag tctaaaagac tgcatttta aacaagttt tagttaatgcg 350
ttggcccacg tagcaaaaaag atatttgatt atctaaaaa ttgttaata 400
ccgttttcat gaaagttctc agtattgtaa cagcaacttg tcaaaccctaa 450
gcatatttga atatgatctc ccataatttga aaattgaaat cgtattgtgt 500
ggagggaaatg gcaatctttagt gtgtgctgaa ggacacagta agagcaccaa 550
gttgtgcccc acttgc 566

<210> 39

<211> 264

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 84-85, 206

<223> unknown base

<400> 39

atgattatttc tgttacttgtt atttatttgtt cagttttatg gtatcttgcg 50

cttggtttagc ccctgaaacc aggagcaaca gggnnncagct tcctggaggt 100

tggttggcaa caatcacggc caagtgactc cgcaaatgac atcccagaga 150

aatcctaaac tgctgtgggt tccgaagtgt taacccaaat gacacctgtc 200

tggctngctg tggtaaaaagt gaccactcggt gctcgccatg tgctccaatc 250

ataggagaat atgc 264

<210> 40

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 40
acccacgtct gcgttgctgc c 21

<210> 41
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 41
gagaatatgc tggagagg 18

<210> 42
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 42
aggaatgcac taggattcgc gcgg 24

<210> 43
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
ggcccaaag gcaaggacaa agcagctgtc agggAACCTC cgccg 45

<210> 44
<211> 2061
<212> DNA
<213> Homo sapiens

<400> 44
cagtcaccat gaagctggc tgtgtcctca tggctggc cctctaccctt 50
tcccttggtg tgctctgggt ggcccagatg ctactggctg ccagtttga 100
gacgctgcag tgtgaggac ctgtctgcac tgaggagac agctgccaca 150
cgaggatga cttgactgat gcaaggaaag ctggcttcca ggtcaaggcc 200
tacactttca gtgaaccctt ccacctgatt gtgtcctatg actggctgat 250
cctccaagggt ccagccaagc cagttttga aggggacctg ctggttctgc 300
gctgccaggc ctggcaagac tggccactga ctcaggtgac cttctaccga 350

gatggcttag ctctgggtcc ccccgccc aacaggaaat totccatcac 400
cgtggtacaa aaggcagaca gcgggcacta ccactgcagt ggcatttc 450
agagccctgg tcctgggatc ccagaaacag catctgttgt ggctatcaca 500
gtccaagaac tgtttccagc gccaattctc agagctgtac ctcagctga 550
accccaagca ggaagcccc tgacccttag ttgtcagaca aagttgcccc 600
tgcagaggc agctgcccgc ctccctttct ctttatacaa ggatggaagg 650
atagtgcataa gcagggggct ctccctcagaa ttccagatcc ccacagcttc 700
agaagatcac tccgggtcat actggtgtga ggcagccact gaggacaacc 750
aagtttgaa acagagcccc cagctagaga tcagagtgc gggtgcttcc 800
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tccaggaact gtcctgagg aggcccctgg gcctctgcct ccggcccaa 900
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cctcatctgt atcaccagat gggccttctt ctcaaacaca tgcaggatgt 1000
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cttectgtcc_tgcacatatg_cataagtact tttacaagtt gtcccaagtgt 1200
tttggtagaa taatgttagtt aggtgagtgt aaataaattt atataaagtg 1250
agaatttagag tttagctata attgtgtatt ctctcttaac acaacagaat 1300
tctgctgtct agatcaggaa tttctatctg ttatatcgac cagaatgttg 1350
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gagtttgaga aaccccaagcc taatgaaacc ctaggtgttg ggctctggaa 1650
tgggactttg tcccttctaa ttattatctc tttccagcct cattcagcta 1700
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ggtgatggca ttaagaagtg ggccttggg aagtgattag atcaggagtg 1850
cagagccctc atgatttagga ttagtgcct tatataaaaa ggcggcagag 1900
agctaactca cccttcacc atatgaggac gtggcaagaa gatgacatgt 1950
atgagaacca aaaaacagct gtcgcacaaac accgactctg tcgttgcctt 2000
gatcttgaac ttccagcctc cagaactatg agaaataaaa ttctggtgt 2050
ttgttagccta a 2061

<210> 45
<211> 359
<212> PRT
<213> Homo sapiens

<400> 45
Met Lys Leu Gly Cys Val Leu Met Ala Trp Ala Leu Tyr Leu Ser
1 5 10 15
Leu Gly Val Leu Trp Val Ala Gln Met Leu Leu Ala Ala Ser Phe
20 25 30
Glu Thr Leu Gln Cys Glu Gly Pro Val Cys Thr Glu Glu Ser Ser
35 40 45
Cys His Thr Glu Asp Asp Leu Thr Asp Ala Arg Glu Ala Gly Phe
50 55 60
Gln Val Lys Ala Tyr Thr Phe Ser Glu Pro Phe His Leu Ile Val
65 70 75
Ser Tyr Asp Trp Leu Ile Leu Gln Gly Pro Ala Lys Pro Val Phe
80 85 90
Glu Gly Asp Leu Leu Val Leu Arg Cys Gln Ala Trp Gln Asp Trp
95 100 105
Pro Leu Thr Gln Val Thr Phe Tyr Arg Asp Gly Ser Ala Leu Gly
110 115 120
Pro Pro Gly Pro Asn Arg Glu Phe Ser Ile Thr Val Val Gln Lys
125 130 135
Ala Asp Ser Gly His Tyr His Cys Ser Gly Ile Phe Gln Ser Pro
140 145 150
Gly Pro Gly Ile Pro Glu Thr Ala Ser Val Val Ala Ile Thr Val
155 160 165
Gln Glu Leu Phe Pro Ala Pro Ile Leu Arg Ala Val Pro Ser Ala
170 175 180
Glu Pro Gln Ala Gly Ser Pro Met Thr Leu Ser Cys Gln Thr Lys
185 190 195

Leu Pro Leu Gln Arg Ser Ala Ala Arg Leu Leu Phe Ser Phe Tyr
200 205 210

Lys Asp Gly Arg Ile Val Gln Ser Arg Gly Leu Ser Ser Glu Phe
215 220 225

Gln Ile Pro Thr Ala Ser Glu Asp His Ser Gly Ser Tyr Trp Cys
230 235 240

Glu Ala Ala Thr Glu Asp Asn Gln Val Trp Lys Gln Ser Pro Gln
245 250 255

Leu Glu Ile Arg Val Gln Gly Ala Ser Ser Ser Ala Ala Pro Pro
260 265 270

Thr Leu Asn Pro Ala Pro Gln Lys Ser Ala Ala Pro Gly Thr Ala
275 280 285

Pro Glu Glu Ala Pro Gly Pro Leu Pro Pro Pro Pro Thr Pro Ser
290 295 300

Ser Glu Asp Pro Gly Phe Ser Ser Pro Leu Gly Met Pro Asp Pro
305 310 315

His Leu Tyr His Gln Met Gly Leu Leu Leu Lys His Met Gln Asp
320 325 330

Val Arg Val Leu Leu Gly His Leu Leu Met Glu Leu Arg Glu Leu
335 340 345

Ser Gly His Gln Lys Pro Gly Thr Thr Lys Ala Thr Ala Glu
350 355

<210> 46

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 46

tgggctgtgt cctcatgg 18

<210> 47

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 47

tttccagcgc caattctc 18

<210> 48

<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 48
agtcttgaa ctgtgatagc cac 23

<210> 49
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 49
aaacttggtt gtccctcagt gctg 24

<210> 50
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 50
gtgaggggacc tgtctgcact gaggagagca gctgccacac ggagg 45

<210> 51
<211> 2181
<212> DNA
<213> Homo sapiens

<400> 51
cccacgcgtc cgccccacg tccgcccacg ggtccggcca cgcgtccggg 50
ccaccagaag tttgagcctc tttggtagca ggaggctgga agaaaggaca 100
gaagtagctc tggctgtat ggggatctta ctgggcctgc tactcctggg 150
gcacctaaca gtggacactt atggccgtcc catcctggaa gtgccagaga 200
gtgtaacagg accttggaaa ggggatgtga atcttcctg cacctatgac 250
cccctgcaag gctacaccca agtcttggtg aagtggctgg tacaacgtgg 300
ctcagaccct gtcaccatct ttctacgtga ctcttctggaa gaccatatcc 350
agcaggcaaa gtaccaggc cgcctgcatg tgagccacaa ggttccagga 400
gatgtatccc tccaatttag caccctggag atggatgacc ggagccacta 450
cacgtgtcaa gtcacactggc agactcctga tggcaaccaa gtcgtgagag 500

ataagattac tgagctccgt gtccagaaac tctctgtctc caagcccaca 550
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accttactct tcaagcctgc ggtgatagcc gactcaggct cctatttctg 750
caactgccaag ggccaggttg gctctgagca gcacagcgac attgtgaagt 800
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ggactggacc actqacatgg atggctacct tggagagacc agtgctggc 950
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agggtcagga catagctgcc ttccctctc caggcacctt ctgagggtgt 1250
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ccagaatccc tgggtggtag gatcctgata attaattggc aagaatttag 1350
gcagaagggt gggaaaccag gaccacagcc ccaagtccct tcttatgggt 1400
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tctaaatacc agagggaga tgcccatagc actaggactt ggtcatcatg 1950
 cctacagaca ctattcaact ttggcatctt gccaccagaa gacccgaggg 2000
 aggctcagct ctgccagctc agaggaccag ctatatccag gatcatttct 2050
 ctttcttcag ggccagacag ctttaattt aaattgttat ttcacaggcc 2100
 agggttcagt tctgctcctc cactataagt ctaatgttct gactctctcc 2150
 tggtgctcaa taaaatatcta atcataaacag c 2181

 <210> 52
 <211> 321
 <212> PRT
 <213> Homo sapiens

 <400> 52
 Met Gly Ile Leu Leu Gly Leu Leu Leu Leu Gly His Leu Thr Val
 1 5 10 15
 Asp Thr Tyr Gly Arg Pro Ile Leu Glu Val Pro Glu Ser Val Thr
 20 25 30
 Gly Pro Trp Lys Gly Asp Val Asn Leu Pro Cys Thr Tyr Asp Pro
 35 40 45
 Leu Gln Gly Tyr Thr Gln Val Leu Val Lys Trp Leu Val Gln Arg
 50 55 60
 Gly Ser Asp Pro Val Thr Ile Phe Leu Arg Asp Ser Ser Gly Asp
 65 70 75

 His Ile Gln Gln Ala Lys Tyr Gln Gly Arg Leu His Val Ser His
 80 85 90
 Lys Val Pro Gly Asp Val Ser Leu Gln Leu Ser Thr Leu Glu Met
 95 100 105
 Asp Asp Arg Ser His Tyr Thr Cys Glu Val Thr Trp Gln Thr Pro
 110 115 120
 Asp Gly Asn Gln Val Val Arg Asp Lys Ile Thr Glu Leu Arg Va
 125 130 135
 Gln Lys Leu Ser Val Ser Lys Pro Thr Val Thr Thr Gly Ser Gl
 140 145 150
 Tyr Gly Phe Thr Val Pro Gln Gly Met Arg Ile Ser Leu Gln Cy
 155 160 165
 Gln Ala Arg Gly Ser Pro Pro Ile Ser Tyr Ile Trp Tyr Lys Gl
 170 175 180
 Gln Thr Asn Asn Gln Glu Pro Ile Lys Val Ala Thr Leu Ser Th
 185 190 195

Leu Leu Phe Lys Pro Ala Val Ile Ala Asp Ser Gly Ser Tyr Phe
200 205 210

Cys Thr Ala Lys Gly Gln Val Gly Ser Glu Gln His Ser Asp Ile
215 220 225

Val Lys Phe Val Val Lys Asp Ser Ser Lys Leu Leu Lys Thr Lys
230 235 240

Thr Glu Ala Pro Thr Thr Met Thr Tyr Pro Leu Lys Ala Thr Ser
245 250 255

Thr Val Lys Gln Ser Trp Asp Trp Thr Thr Asp Met Asp Gly Tyr
260 265 270

Leu Gly Glu Thr Ser Ala Gly Pro Gly Lys Ser Leu Pro Val Phe
275 280 285

Ala Ile Ile Leu Ile Ile Ser Leu Cys Cys Met Val Val Phe Thr
290 295 300

Met Ala Tyr Ile Met Leu Cys Arg Lys Thr Ser Gln Gln Glu His
305 310 315

Val Tyr Glu Ala Ala Arg
320

<210> 53

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 53

tatccctcca attgagcacc ctgg 24

<210> 54

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 54

gtcggaagac atcccaacaa g 21

<210> 55

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 55
cttcacaatg tcgctgtgct gctc 24

<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 56
agccaaatcc agcagctggc ttac 24

<210> 57
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 57
tggatgaccg gagccactac acgtgtgaag tcacctggca gactcctgat 50

<210> 58
<211> 2458
<212> DNA
<213> Homo sapiens

<400> 58
gcgcgggag cccatctgcc cccaggggca cggggcgccgg ggccggctcc 50

cgccccggcac atggctgcag ccacctcgcg cgcaccccgaa ggccggccgc 100
ccagctcgcc cgaggtccgt cggaggcgcc cggccggccc ggagccaagc 150
agcaactgag cgggaaagcg cccgcgtccg gggatcggga tgtccctcct 200
ccttctcctc ttgttagttt cctactatgt tggAACCTTG gggactcaca 250
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caactggggc ttccagaaaa agacactctg gatattgaat ggctgctcac 350
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tctacaataa cttgactgag gaacagaagg gccgagtgcc ctttgcttcc 450
aatttcctgg caggagatgc ctccttgcag attgaacctc tgaAGCCAG 500
tgtatgagggc cggtacacct gtaaggtaa gaattcaggcg cgctacgtgt 550
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gagttggaag gagagctgac agaaggaagt gacctgactt tgcagtgtga 650

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actgtaccag tgcacagcag gcaacgaagc tgggaaggaa agctgtgtgg 850
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ccagaggtga gaggttctga accaaagaaa gtccaccatg ctaatctgac 1250
caaagcagaa accacaccca gcatgatccc cagccagagc agagccttcc 1300
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gggtcttgg actcttctcg tcattggagc tcaagtcacc agccacacaa 1400
ccagatgaga ggtcatctaa gtagcagtga gcattgcacg gaacagattc 1450
agatgagcat tttccttata caataccaaa caagcaaaag gatgtaaact 1500

gattcatctg taaaaaggca tcttattgtg ccttagacc agagtaaggg 1550
aaagcaggag tccaaatcta tttgttgacc aggacctgtg gtgagaaggt 1600
tggggaaagg tgaggtgaat atacctaaaa ctttaatgt gggatatttt 1650
gtatcagtgc tttgattcac aattttcaag agggaaatggg atgctgtttg 1700
taaattttct atgcatttct gcaaacttat tggatttata gttattcaga 1750
cagtcaagca gaacccacag ccttattaca cctgtctaca ccatgtactg 1800
agctaaccac ttctaaagaaa ctccaaaaaaaa ggaaacatgt gtcttctatt 1850
ctgacttaac ttcatggc ataaggttt gatattaatt tcaaggggag 1900
ttgaaatagt gggagatgga gaagagtga tgagttctc ccactctata 1950
ctaatactcac tatttgtatt gagccaaaa taactatgaa aggagacaaa 2000
aatttgtgac aaaggattgt gaagagctt ccatcttcat gatgttatga 2050
ggattgtga caaacattag aaatatataa tggagcaatt gtggatttcc 2100

cctcaaatca gatgcctcta aggactttcc tgctagatat ttctggaagg 2150
agaaaataca acatgtcatt tatcaacgtc cttagaaaga attcttctag 2200
agaaaaaggg atcttaggaat gctgaaagat taccacaat accattata 2250
tctcttctt ctgagaaaat gtgaaaccag aattgcaaga ctgggtggac 2300
tagaaaaggg gattagatca gttttctctt aatatgtcaa ggaaggtagc 2350
cgggcatggc gccaggcacc tgttagaaaa tccagcaggt ggagggtgca 2400
tgagccgag attatgccat tgcactccag cctgggtgac agagcgggac 2450
tccgtctc 2458

<210> 59
<211> 373
<212> PRT
<213> Homo sapiens

<400> 59
Met Ser Leu Leu Leu Leu Leu Val Ser Tyr Tyr Val Gly
1 5 10 15
Thr Leu Gly Thr His Thr Glu Ile Lys Arg Val Ala Glu Glu Lys
20 25 30
Val Thr Leu Pro Cys His His Gln Leu Gly Leu Pro Glu Lys Asp
35 40 45
Thr Leu Asp Ile Glu Trp Leu Leu Thr Asp Asn Glu Gly Asn Gln
50 55 60
Lys Val Val Ile Thr Tyr Ser Ser Arg His Val Tyr Asn Asn Leu
65 70 75
Thr Glu Glu Gln Lys Gly Arg Val Ala Phe Ala Ser Asn Phe Leu
80 85 90
Ala Gly Asp Ala Ser Leu Gln Ile Glu Pro Leu Lys Pro Ser Asp
95 100 105
Glu Gly Arg Tyr Thr Cys Lys Val Lys Asn Ser Gly Arg Tyr Val
110 115 120
Trp Ser His Val Ile Leu Lys Val Leu Val Arg Pro Ser Lys Pro
125 130 135
Lys Cys Glu Leu Glu Gly Glu Leu Thr Glu Gly Ser Asp Leu Thr
140 145 150
Leu Gln Cys Glu Ser Ser Ser Gly Thr Glu Pro Ile Val Tyr Tyr
155 160 165
Trp Gln Arg Ile Arg Glu Lys Glu Gly Glu Asp Glu Arg Leu Pro

170	175	180
Pro Lys Ser Arg Ile Asp Tyr Asn His Pro Gly Arg Val Leu Leu		
185	190	195
Gln Asn Leu Thr Met Ser Tyr Ser Gly Leu Tyr Gln Cys Thr Ala		
200	205	210
Gly Asn Glu Ala Gly Lys Glu Ser Cys Val Val Arg Val Thr Val		
215	220	225
Gln Tyr Val Gln Ser Ile Gly Met Val Ala Gly Ala Val Thr Gly		
230	235	240
Ile Val Ala Gly Ala Leu Leu Ile Phe Leu Leu Val Trp Leu Leu		
245	250	255
Ile Arg Arg Lys Asp Lys Glu Arg Tyr Glu Glu Glu Arg Pro		
260	265	270
Asn Glu Ile Arg Glu Asp Ala Glu Ala Pro Lys Ala Arg Leu Val		
275	280	285
Lys Pro Ser Ser Ser Ser Gly Ser Arg Ser Ser Arg Ser Gly		
290	295	300
Ser Ser Ser Thr Arg Ser Thr Ala Asn Ser Ala Ser Arg Ser Gln		
305	310	315
Arg Thr Leu Ser Thr Asp Ala Ala Pro Gln Pro Gly Leu Ala Thr		
320	325	330
Gln Ala Tyr Ser Leu Val Gly Pro Glu Val Arg Gly Ser Glu Pro		
335	340	345
Lys Lys Val His His Ala Asn Leu Thr Lys Ala Glu Thr Thr Pro		
350	355	360
Ser Met Ile Pro Ser Gln Ser Arg Ala Phe Gln Thr Val		
365	370	

<210> 60

<211> 24

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<223> Synthetic oligonucleotide probe

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<211> 655

<212> PRT

<213> Homo sapiens

<400> 64

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Cys	Pro	Val	Gly	Thr	Phe	Thr	Arg	His	Glu	Asn	Gly	Ile	Glu	Lys
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Cys	His	Asp	Cys	Ser	Gln	Pro	Cys	Pro	Trp	Pro	Met	Ile	Glu	Lys
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Leu	Pro	Cys	Ala	Ala	Leu	Thr	Asp	Arg	Glu	Cys	Thr	Cys	Pro	Pro
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Pro	Val	Gly	Trp	Gly	Val	Arg	Lys	Lys	Gly	Thr	Glu	Thr	Glu	Asp
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Val	Arg	Cys	Lys	Gln	Cys	Ala	Arg	Gly	Thr	Phe	Ser	Asp	Val	Pro
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Val	Pro	Ser	Ser	Thr	Tyr	Val	Pro	Lys	Gly	Met	Asn	Ser	Thr	Glu
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Ser	Asn	Ser	Ser	Ala	Ser	Val	Arg	Pro	Lys	Val	Leu	Ser	Ser	Ile
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Pro Lys Arg Gly His Pro Arg Gln Asn Leu His Lys His Phe Asp
335 340 345

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Val Leu Val Val Ile Val Val Cys Ser Ile Arg Lys Ser Ser Arg
365 370 375

Thr Leu Lys Lys Gly Pro Arg Gln Asp Pro Ser Ala Ile Val Glu
380 385 390

Lys Ala Gly Leu Lys Lys Ser Met Thr Pro Thr Gln Asn Arg Glu
395 400 405

Lys Trp Ile Tyr Tyr Cys Asn Gly His Gly Ile Asp Ile Leu Lys
410 415 420

Leu Val Ala Ala Gln Val Gly Ser Gln Trp Lys Asp Ile Tyr Gln
425 430 435

Phe Leu Cys Asn Ala Ser Glu Arg Glu Val Ala Ala Phe Ser Asn
440 445 450

Gly-Tyr-Thr-Ala-Asp-His-Glu-Arg-Ala-Tyr-Ala-Ala-Leu-Gln-His
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Trp Thr Ile Arg Gly Pro Glu Ala Ser Leu Ala Gln Leu Ile Ser
470 475 480

Ala Leu Arg Gln His Arg Arg Asn Asp Val Val Glu Lys Ile Arg
485 490 495

Gly Leu Met Glu Asp Thr Thr Gln Leu Glu Thr Asp Lys Leu Ala
500 505 510

Leu Pro Met Ser Pro Ser Pro Leu Ser Pro Ser Pro Ile Pro Ser
515 520 525

Pro Asn Ala Lys Leu Glu Asn Ser Ala Leu Leu Thr Val Glu Pro
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Ser Pro Gln Asp Lys Asn Lys Gly Phe Phe Val Asp Glu Ser Glu
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Pro Leu Leu Arg Cys Asp Ser Thr Ser Ser Gly Ser Ser Ala Leu
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Ser Arg Asn Gly Ser Phe Ile Thr Lys Glu Lys Lys Asp Thr Val
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Leu Arg Gln Val Arg Leu Asp Pro Cys Asp Leu Gln Pro Ile Phe
590 595 600

Asp Asp Met Leu His Phe Leu Asn Pro Glu Glu Leu Arg Val Ile
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Glu Glu Ile Pro Gln Ala Glu Asp Lys Leu Asp Arg Leu Phe Glu
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<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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<211> 24

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<223> Synthetic oligonucleotide probe

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<210> 67

<211> 50

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 67

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<210> 68

<211> 2412

<212> DNA

<213> Homo sapiens

<400> 68

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<213> Homo sapiens

<400> 69
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35 40 45
Leu Lys Phe Phe Pro Ile Ile Val Ile Gly Ile Ile Ala Leu Ile

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65	70	75
Lys Tyr Arg Cys Arg Ser Ser Phe Lys Cys Ile Glu Leu Ile Ala		
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Arg Cys Asp Gly Val Ser Asp Cys Lys Asp Gly Glu Asp Glu Tyr		
95	100	105
Arg Cys Val Arg Val Gly Gly Gln Asn Ala Val Leu Gln Val Phe		
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His Tyr Ala Asn Val Ala Cys Ala Gln Leu Gly Phe Pro Ser Tyr		
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Arg Glu Glu Phe Val Ser Ile Asp His Leu Leu Pro Asp Asp Lys		
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Ser Gly His Val Val Thr Leu Gln Cys Thr Ala Cys Gly His Arg		
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Arg Gly Tyr Ser Ser Arg Ile Val Gly Gly Asn Met Ser Leu Leu		
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Ser Gln Trp Pro Trp Gln Ala Ser Leu Gln Phe Gln Gly Tyr His		
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245	250	255
Ala His Cys Val Tyr Asp Leu Tyr Leu Pro Lys Ser Trp Thr Ile		
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Gln Val Gly Leu Val Ser Leu Leu Asp Asn Pro Ala Pro Ser His		
275	280	285
Leu Val Glu Lys Ile Val Tyr His Ser Lys Tyr Lys Pro Lys Arg		
290	295	300
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Phe Asn Glu Met Ile Gln Pro Val Cys Leu Pro Asn Ser Glu Glu		
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Asn Phe Pro Asp Gly Lys Val Cys Trp Thr Ser Gly Trp Gly Ala		

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350	355	360
Val Pro Leu Ile Ser Asn Lys Ile Cys Asn His Arg Asp Val Tyr		
365	370	375
Gly Gly Ile Ile Ser Pro Ser Met Leu Cys Ala Gly Tyr Leu Thr		
380	385	390
Gly Gly Val Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val		
395	400	405
Cys Gln Glu Arg Arg Leu Trp Lys Leu Val Gly Ala Thr Ser Phe		
410	415	420
Gly Ile Gly Cys Ala Glu Val Asn Lys Pro Gly Val Tyr Thr Arg		
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<223> Synthetic oligonucleotide probe

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<212> DNA

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<223> Synthetic oligonucleotide probe

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<210> 72

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<212> DNA
<213> Homo sapiens

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gaggggtgtg caacaacagg aagaactgcc actgcgaggc ccactgggca 2350
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gaaat 3305

<210> 74
<211> 735
<212> PRT
<213> Homo sapiens

<400> 74
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1 5 10 15
Leu Ala Leu Ala Gly Ala Leu Leu Ala Pro Cys Glu Ala Arg Gly
20 25 30
Val Ser Leu Trp Asn Gln Gly Arg Ala Asp Glu Val Val Ser Ala
35 40 45
Ser Val Arg Ser Gly Asp Leu Trp Ile Pro Val Lys Ser Phe Asp
50 55 60
Ser Lys Asn His Pro Glu Val Leu Asn Ile Arg Leu Gln Arg Glu
65 70 75
Ser Lys Glu Leu Ile Ile Asn Leu Glu Arg Asn Glu Gly Leu Ile
80 85 90
Ala Ser Ser Phe Thr Glu Thr His Tyr Leu Gln Asp Gly Thr Asp
95 100 105
Val Ser Leu Ala Arg Asn Tyr Thr Gly His Cys Tyr Tyr His Gly
110 115 120

His Val Arg Gly Tyr Ser Asp Ser Ala Val Ser Leu Ser Thr Cys
125 130 135

Ser Gly Leu Arg Gly Leu Ile Val Phe Glu Asn Glu Ser Tyr Val
140 145 150

Leu Glu Pro Met Lys Ser Ala Thr Asn Arg Tyr Lys Leu Phe Pro
155 160 165

Ala Lys Lys Leu Lys Ser Val Arg Gly Ser Cys Gly Ser His His
170 175 180

Asn Thr Pro Asn Leu Ala Ala Lys Asn Val Phe Pro Pro Pro Ser
185 190 195

Gln Thr Trp Ala Arg Arg His Lys Arg Glu Thr Leu Lys Ala Thr
200 205 210

Lys Tyr Val Glu Leu Val Ile Val Ala Asp Asn Arg Glu Phe Gln
215 220 225

Arg Gln Gly Lys Asp Leu Glu Lys Val Lys Gln Arg Leu Ile Glu
230 235 240

Ile Ala Asn His Val Asp Lys Phe Tyr Arg Pro Leu Asn Ile Arg
245 250 255

Ile Val Leu Val Gly Val Glu Val Trp Asn Asp Met Asp Lys Cys
260 265 270

Ser Val Ser Gln Asp Pro Phe Thr Ser Leu His Glu Phe Leu Asp
275 280 285

Trp Arg Lys Met Lys Leu Leu Pro Arg Lys Ser His Asp Asn Ala
290 295 300

Gln Leu Val Ser Gly Val Tyr Phe Gln Gly Thr Thr Ile Gly Met
305 310 315

Ala Pro Ile Met Ser Met Cys Thr Ala Asp Gln Ser Gly Gly Ile
320 325 330

Val Met Asp His Ser Asp Asn Pro Leu Gly Ala Ala Val Thr Leu
335 340 345

Ala His Glu Leu Gly His Asn Phe Gly Met Asn His Asp Thr Leu
350 355 360

Asp Arg Gly Cys Ser Cys Gln Met Ala Val Glu Lys Gly Gly Cys
365 370 375

Ile Met Asn Ala Ser Thr Gly Tyr Pro Phe Pro Met Val Phe Ser
380 385 390

Ser Cys Ser Arg Lys Asp Leu Glu Thr Ser Leu Glu Lys Gly Met
395 400 405

Gly Val Cys Leu Phe Asn Leu Pro Glu Val Arg Glu Ser Phe Gly
410 415 420

Gly Gln Lys Cys Gly Asn Arg Phe Val Glu Glu Gly Glu Cys
425 430 435

Asp Cys Gly Glu Pro Glu Glu Cys Met Asn Arg Cys Cys Asn Ala
440 445 450

Thr Thr Cys Thr Leu Lys Pro Asp Ala Val Cys Ala His Gly Leu
455 460 465

Cys Cys Glu Asp Cys Gln Leu Lys Pro Ala Gly Thr Ala Cys Arg
470 475 480

Asp Ser Ser Asn Ser Cys Asp Leu Pro Glu Phe Cys Thr Gly Ala
485 490 495

Ser Pro His Cys Pro Ala Asn Val Tyr Leu His Asp Gly His Ser
500 505 510

Cys Gln Asp Val Asp Gly Tyr Cys Tyr Asn Gly Ile Cys Gln Thr
515 520 525

His Glu Gln Gln Cys Val Thr Leu Trp Gly Pro Gly Ala Lys Pro
530 535 540

Ala Pro Gly Ile Cys Phe Glu Arg Val Asn Ser Ala Gly Asp Pro
545 550 555

Tyr Gly Asn Cys Gly Lys Val Ser Lys Ser Ser Phe Ala Lys Cys
560 565 570

Glu Met Arg Asp Ala Lys Cys Gly Lys Ile Gln Cys Gln Gly Gly
575 580 585

Ala Ser Arg Pro Val Ile Gly Thr Asn Ala Val Ser Ile Glu Thr
590 595 600

Asn Ile Pro Leu Gln Gln Gly Gly Arg Ile Leu Cys Arg Gly Thr
605 610 615

His Val Tyr Leu Gly Asp Asp Met Pro Asp Pro Gly Leu Val Leu
620 625 630

Ala Gly Thr Lys Cys Ala Asp Gly Lys Ile Cys Leu Asn Arg Gln
635 640 645

Cys Gln Asn Ile Ser Val Phe Gly Val His Glu Cys Ala Met Gln
650 655 660

Cys His Gly Arg Gly Val Cys Asn Asn Arg Lys Asn Cys His Cys
665 670 675

Glu Ala His Trp Ala Pro Pro Phe Cys Asp Lys Phe Gly Phe Gly
680 685 690

Gly Ser Thr Asp Ser Gly Pro Ile Arg Gln Ala Glu Ala Arg Gln
695 700 705

Glu Ala Ala Glu Ser Asn Arg Glu Arg Gly Gln Gly Gln Glu Pro
710 715 720

Val Gly Ser Gln Glu His Ala Ser Thr Ala Ser Leu Thr Leu Ile
725 730 735

<210> 75

<211> 483

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 30, 94, 143, 156, 163, 179, 193, 369, 371, 381, 390, 473

<223> unknown base

<400> 75

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ctgacaacga aaacaaaaca gttttggggg ttcaggaggg gaantccagc 100

ctacccagga agtttgcaga aacagtgc aa ggaaggcag ganttcctgg 150

ttgagnttt tgntaaaaca tggacatgt tcagtgc tcntgagaga 200

gttagcaggtt accactttt gcaggccccca gccctgc aaggaggaag 250

aggactcaa a gtttggc ttcaactgagc ctccacagca gtgggggaga 300

agcaagggtt gggcccagtg tccccttcc ccagtgc ac ctcagccttg 350

gcagccctga taactggtn ntggctgcaa nttaatgctn tgatatggct 400

ttagcattt attatatgaa aatagcaggg ttttagttt taatttatca 450

gagaccctgc caccattcc atntccatcc aag 483

<210> 76

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 76

gtctcagcac gtgttctggc ctcaggg 27

<210> 77

<211> 18

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 77
catgagcatg tgcacggc 18

<210> 78
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 78
tacctgcacg atgggcac 18

<210> 79
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 79
caactgggcac ctcccttc 18

<210> 80
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 80
ctccaggctg gtctccaagt ccttcc 26

<210> 81
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
tccctgttgg actctgcagc ttcc 24

<210> 82
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 82
cttcgctggg aagagttt 19

<210> 83
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 83
gtgcaaccaa cagatacaaa ctcttccag cgaagaagct gaaaagcg 50

<210> 84
<211> 1714
<212> DNA
<213> Homo sapiens

<400> 84
catcctgcaa catggtgaaa ccacgcctgg ctaattttgt tgtatTTT 50
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aaccacaccc ggccacaaac ttttaagaa gttaatgaaa ccataacctt 200
tacattttta atgacaggaa aatgctcaca ataattgtta acccaaaatt 250
ctggatacaa aagtacaatc ttactgtgt aaatacatgt atatgtacta 300

tatgaaaata taccaaataat caataatact tatctctggg taaaaaccc 350
ttctcataacc ctgtgctaac aacttttaac aaaaaatttg catcactttt 400
aagaatcaag aaaaatttct gaaggtcata tgggacagaa aaaaaaacca 450
agggaaaaat cacgccactt gggaaaaaaa gattcgaaat ctgcctttt 500
atagatttgt aattaataag gtccaggctt tctaagcaac ttaaatgttt 550
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caactgcattt atgatgcccc ttgaatataa gaccctactt gctatctccc 650
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<210> 85
<211> 67
<212> PRT
<213> Homo sapiens

<400> 85
Met Gly Lys Gly Met Val Ala Met Leu Ile Leu Gly Leu Leu Leu
1 5 10 15

Leu Ala Leu Leu Leu Pro Val Gln Val Ser Ser Phe Val Pro Leu
20 25 30

Thr Ser Met Pro Glu Ala Thr Ala Ala Glu Thr Thr Lys Pro Ser
35 40 45

Asn Ser Ala Leu Gln Pro Thr Ala Gly Leu Leu Val Val Leu Leu
50 55 60

Ala Leu Leu His Leu Tyr His
65

<210> 86
<211> 23

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 86
acgggcacac tggatcccaa atg 23

<210> 87
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 87
ggtagagatg tagaaggca agcaagacc 29

<210> 88
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 88
. gctccctacc cgtgcagggtt tcttcatttg ttccttaac cagtatgccc 50

<210> 89
<211> 2956
<212> DNA
<213> Homo sapiens

<400> 89
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cgccctcctcc cgctgctggc ccggccggcg gccctgactg cgctgctgct 100
gctgctgctg ggccatggcg gcggcgggcn ctggggcgcc cgggcccagg 150
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ggacaggacc cgcacagcaa gcacctgtac acggccgaca tgttcacgca 250
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<210> 90
<211> 432
<212> PRT
<213> Homo sapiens

<400> 90
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1 5 10 15
Ala Ala Leu Thr Ala Leu Leu Leu Leu Gly His Gly Gly
20 25 30
Gly Gly Arg Trp Gly Ala Arg Ala Gln Glu Ala Ala Ala Ala
35 40 45

Ala Asp Gly Pro Pro Ala Ala Asp Gly Glu Asp Gly Gln Asp Pro
50 55 60

His Ser Lys His Leu Tyr Thr Ala Asp Met Phe Thr His Gly Ile
65 70 75

Gln Ser Ala Ala His Phe Val Met Phe Phe Ala Pro Trp Cys Gly
80 85 90

His Cys Gln Arg Leu Gln Pro Thr Trp Asn Asp Leu Gly Asp Lys
95 100 105

Tyr Asn Ser Met Glu Asp Ala Lys Val Tyr Val Ala Lys Val Asp
110 115 120

Cys Thr Ala His Ser Asp Val Cys Ser Ala Gln Gly Val Arg Gly
125 130 135

Tyr Pro Thr Leu Lys Leu Phe Lys Pro Gly Gln Glu Ala Val Lys
140 145 150

Tyr Gln Gly Pro Arg Asp Phe Gln Thr Leu Glu Asn Trp Met Leu
155 160 165

Gln Thr Leu Asn Glu Glu Pro Val Thr Pro Glu Pro Glu Val Glu
170 175 180

Pro Pro Ser Ala Pro Glu Leu Lys Gln Gly Leu Tyr Glu Leu Ser
185 190 195

Ala Ser Asn Phe Glu Leu His Val Ala Gln Gly Asp His Phe Ile
200 205 210

Lys Phe Phe Ala Pro Trp Cys Gly His Cys Lys Ala Leu Ala Pro
215 220 225

Thr Trp Glu Gln Leu Ala Leu Gly Leu Glu His Ser Glu Thr Val
230 235 240

Lys Ile Gly Lys Val Asp Cys Thr Gln His Tyr Glu Leu Cys Ser
245 250 255

Gly Asn Gln Val Arg Gly Tyr Pro Thr Leu Leu Trp Phe Arg Asp
260 265 270

Gly Lys Lys Val Asp Gln Tyr Lys Gly Lys Arg Asp Leu Glu Ser
275 280 285

Leu Arg Glu Tyr Val Glu Ser Gln Leu Gln Arg Thr Glu Thr Gly
290 295 300

Ala Thr Glu Thr Val Thr Pro Ser Glu Ala Pro Val Leu Ala Ala
305 310 315

Glu Pro Glu Ala Asp Lys Gly Thr Val Leu Ala Leu Thr Glu Asn
320 325 330

Asn Phe Asp Asp Thr Ile Ala Glu Gly Ile Thr Phe Ile Lys Phe
335 340 345
Tyr Ala Pro Trp Cys Gly His Cys Lys Thr Leu Ala Pro Thr Trp
350 355 360
Glu Glu Leu Ser Lys Lys Glu Phe Pro Gly Leu Ala Gly Val Lys
365 370 375
Ile Ala Glu Val Asp Cys Thr Ala Glu Arg Asn Ile Cys Ser Lys
380 385 390
Tyr Ser Val Arg Gly Tyr Pro Thr Leu Leu Leu Phe Arg Gly Gly
395 400 405
Lys Lys Val Ser Glu His Ser Gly Gly Arg Asp Leu Asp Ser Leu
410 415 420
His Arg Phe Val Leu Ser Gln Ala Lys Asp Glu Leu
425 430

<210> 91

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 91

atgttcttcg cgcctggtg 20

<210> 92

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 92

ccaagccaa acactctaca g 21

<210> 93

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 93

aagtggtcgc ctttgcaac gtgc 24

<210> 94

<211> 23

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 94
ggtcaaagg gatatatcgc cac 23

<210> 95
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 95
gcatggaaga tgccaaagtc tatgtggcta aagtggactg cacggccca 49

<210> 96
<211> 1016
<212> DNA
<213> Homo sapiens

<400> 96
ctttctgag gaaccacagc aatgaatggc tttgcattct tgcttcgaag 50

aaacccaattt atcctcctgg tactatttct tttgcaaatt cagagtctgg 100
gtctggatat tgataggcgat cctaccgctg aagtctgtgc cacacacaca 150

atttcaccag gacccaaagg agatgatggt gaaaaaggag atccaggaga 200

agagggaaag catggcaaag tgggacgcat ggggccaaa ggaattaaag 250

gagaactggg tggatggaa gatcaggca atattggcaa gactggccc 300

attggaaaga agggatgacaa agggaaaaaa ggtttgcttgc gataacctgg 350

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ctacatcgta caggaagaga agaactacag ggaatcccta acccactgca 550

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ggtcatgagg actgtgttgc gatgctgagc tctggcagat ggaatgacac 800

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cagttattgt tatccatcct tttttcctg attgtactac atttgatctg 950
agtcaacata gctagaaaaat gctaaactga ggtatggagc ctccatcatc 1000
aaaaaaaaaa aaaaaa 1016

<210> 97
<211> 277
<212> PRT
<213> Homo sapiens

<400> 97

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Leu Val Leu Phe Leu Leu Gln Ile Gln Ser Leu Gly Leu Asp Ile
20 25 30

Asp Ser Arg Pro Thr Ala Glu Val Cys Ala Thr His Thr Ile Ser
35 40 45

Pro Gly Pro Lys Gly Asp Asp Gly Glu Lys Gly Asp Pro Gly Glu
50 55 60

Glu Gly Lys His Gly Lys Val Gly Arg Met Gly Pro Lys Gly Ile
65 70 75

Lys Gly Glu Leu Gly Asp Met Gly Asp Gln Gly Asn Ile Gly Lys
80 85 90

Thr Gly Pro Ile Gly Lys Gly Asp Lys Gly Glu Lys Gly Leu
95 100 105

Leu Gly Ile Pro Gly Glu Lys Gly Lys Ala Gly Thr Val Cys Asp
110 115 120

Cys Gly Arg Tyr Arg Lys Phe Val Gly Gln Leu Asp Ile Ser Ile
125 130 135

Ala Arg Leu Lys Thr Ser Met Lys Phe Val Lys Asn Val Ile Ala
140 145 150

Gly Ile Arg Glu Thr Glu Glu Lys Phe Tyr Tyr Ile Val Gln Glu
155 160 165

Glu Lys Asn Tyr Arg Glu Ser Leu Thr His Cys Arg Ile Arg Gly
170 175 180

Gly Met Leu Ala Met Pro Lys Asp Glu Ala Ala Asn Thr Leu Ile
185 190 195

Ala Asp Tyr Val Ala Lys Ser Gly Phe Phe Arg Val Phe Ile Gly

200	205	210
Val Asn Asp Leu Glu Arg Glu Gly Gln Tyr Met Ser Thr Asp Asn		
215	220	225
Thr Pro Leu Gln Asn Tyr Ser Asn Trp Asn Glu Gly Glu Pro Ser		
230	235	240
Asp Pro Tyr Gly His Glu Asp Cys Val Glu Met Leu Ser Ser Gly		
245	250	255
Arg Trp Asn Asp Thr Glu Cys His Leu Thr Met Tyr Phe Val Cys		
260	265	270
Glu Phe Ile Lys Lys Lys Lys		
275		

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<213> Artificial Sequence

<220>
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<210> 99
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 99
gatgatggag gctccataacc tcag 24

<210> 100
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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gtgttcattg gcgtaatga ccttgaaagg gagggacagt acatgttcac 50

<210> 101
<211> 2574
<212> DNA
<213> Homo sapiens

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gagaagtctc agctagaacg agcggcccta ggtttcgga agggaggatc 200
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catggcccaa cttgttatt gcag 2574

<210> 102

<211> 730

<212> PRT

<213> Homo sapiens

<400> 102

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Gln Leu Glu Arg Ala Ala Leu Gly Phe Arg Lys Gly Gly Ser Gly
20 25 30

Met	Phe	Ala	Ser	Gly	Trp	Asn	Gln	Thr	Val	Pro	Ile	Glu	Glu	Ala
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35									40					
Gly	Ser	Met	Ala	Ala	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Leu	Leu	
														60
50									55					
Pro	Leu	Leu	Leu	Leu	Lys	Leu	His	Leu	Trp	Pro	Gln	Leu	Arg	Trp
														75
65									70					
Leu	Pro	Ala	Asp	Leu	Ala	Phe	Ala	Val	Arg	Ala	Leu	Cys	Cys	Lys
80									85					90
Arg	Ala	Leu	Arg	Ala	Arg	Ala	Leu	Ala	Ala	Ala	Ala	Ala	Asp	Pro
														105
95									100					
Glu	Gly	Pro	Glu	Gly	Gly	Cys	Ser	Leu	Ala	Trp	Arg	Leu	Ala	Glu
110									115					120
Leu	Ala	Gln	Gln	Arg	Ala	Ala	His	Thr	Phe	Leu	Ile	His	Gly	Ser
125									130					135
Arg	Arg	Phe	Ser	Tyr	Ser	Glu	Ala	Glu	Arg	Glu	Ser	Asn	Arg	Ala
														150
140									145					
Ala	Arg	Ala	Phe	Leu	Arg	Ala	Leu	Gly	Trp	Asp	Trp	Gly	Pro	Asp
155									160					165
Gly	Gly	Asp	Ser	Gly	Glu	Gly	Ser	Ala	Gly	Glu	Gly	Glu	Arg	Ala
170									175					180
Ala	Pro	Gly	Ala	Gly	Asp	Ala	Ala	Ala	Gly	Ser	Gly	Ala	Glu	Phe
185									190					195
Ala	Gly	Gly	Asp	Gly	Ala	Ala	Arg	Gly	Gly	Ala	Ala	Ala	Pro	
200									205					210
Leu	Ser	Pro	Gly	Ala	Thr	Val	Ala	Leu	Leu	Leu	Pro	Ala	Gly	Pro
215									220					225
Glu	Phe	Leu	Trp	Leu	Trp	Phe	Gly	Leu	Ala	Lys	Ala	Gly	Leu	Arg
230									235					240
Thr	Ala	Phe	Val	Pro	Thr	Ala	Leu	Arg	Arg	Gly	Pro	Leu	Leu	His
245									250					255
Cys	Leu	Arg	Ser	Cys	Gly	Ala	Arg	Ala	Leu	Val	Leu	Ala	Pro	Glu
260									265					270
Phe	Leu	Glu	Ser	Leu	Glù	Pro	Asp	Leu	Pro	Ala	Leu	Arg	Ala	Met
275									280					285
Gly	Leu	His	Leu	Trp	Ala	Ala	Gly	Pro	Gly	Thr	His	Pro	Ala	Gly
290									295					300
Ile	Ser	Asp	Leu	Leu	Ala	Glu	Val	Ser	Ala	Glu	Val	Asp	Gly	Pro
305									310					315

Val	Pro	Gly	Tyr	Leu	Ser	Ser	Pro	Gln	Ser	Ile	Thr	Asp	Thr	Cys
				320				325						330
Leu	Tyr	Ile	Phe	Thr	Ser	Gly	Thr	Thr	Gly	Leu	Pro	Lys	Ala	Ala
				335				340						345
Arg	Ile	Ser	His	Leu	Lys	Ile	Leu	Gln	Cys	Gln	Gly	Phe	Tyr	Gln
				350				355						360
Leu	Cys	Gly	Val	His	Gln	Glu	Asp	Val	Ile	Tyr	Leu	Ala	Leu	Pro
				365				370						375
Leu	Tyr	His	Met	Ser	Gly	Ser	Leu	Leu	Gly	Ile	Val	Gly	Cys	Met
				380				385						390
Gly	Ile	Gly	Ala	Thr	Val	Val	Leu	Lys	Ser	Lys	Phe	Ser	Ala	Gly
				395				400						405
Gln	Phe	Trp	Glu	Asp	Cys	Gln	Gln	His	Arg	Val	Thr	Val	Phe	Gln
				410				415						420
Tyr	Ile	Gly	Glu	Leu	Cys	Arg	Tyr	Leu	Val	Asn	Gln	Pro	Pro	Ser
				425				430						435
Lys	Ala	Glu	Arg	Gly	His	Lys	Val	Arg	Leu	Ala	Val	Gly	Ser	Gly
				440				445						450
Leu	Arg	Pro	Asp	Thr	Trp	Glu	Arg	Phe	Val	Arg	Arg	Phe	Gly	Pro
				455				460						465
Leu	Gln	Val	Leu	Glu	Thr	Tyr	Gly	Leu	Thr	Glu	Gly	Asn	Val	Ala
				470				475						480
Thr	Ile	Asn	Tyr	Thr	Gly	Gln	Arg	Gly	Ala	Val	Gly	Arg	Ala	Ser
				485				490						495
Trp	Leu	Tyr	Lys	His	Ile	Phe	Pro	Phe	Ser	Leu	Ile	Arg	Tyr	Asp
				500				505						510
Val	Thr	Thr	Gly	Glu	Pro	Ile	Arg	Asp	Pro	Gln	Gly	His	Cys	Met
				515				520						525
Ala	Thr	Ser	Pro	Gly	Glu	Pro	Gly	Leu	Leu	Val	Ala	Pro	Val	Ser
				530				535						540
Gln	Gln	Ser	Pro	Phe	Leu	Gly	Tyr	Ala	Gly	Gly	Pro	Glu	Leu	Ala
				545				550						555
Gln	Gly	Lys	Leu	Leu	Lys	Asp	Val	Phe	Arg	Pro	Gly	Asp	Val	Phe
				560				565						570
Phe	Asn	Thr	Gly	Asp	Leu	Leu	Val	Cys	Asp	Asp	Gln	Gly	Phe	Leu
				575				580						585
Arg	Phe	His	Asp	Arg	Thr	Gly	Asp	Thr	Phe	Arg	Trp	Lys	Gly	Glu
				590				595						600

Asn Val Ala Thr Thr Glu Val Ala Glu Val Phe Glu Ala Leu Asp
605 610 615

Phe Leu Gln Glu Val Asn Val Tyr Gly Val Thr Val Pro Gly His
620 625 630

Glu Gly Arg Ala Gly Met Ala Ala Leu Val Leu Arg Pro Pro His
635 640 645

Ala Leu Asp Leu Met Gln Leu Tyr Thr His Val Ser Glu Asn Leu
650 655 660

Pro Pro Tyr Ala Arg Pro Arg Phe Leu Arg Leu Gln Glu Ser Leu
665 670 675

Ala Thr Thr Glu Thr Phe Lys Gln Gln Lys Val Arg Met Ala Asn
680 685 690

Glu Gly Phe Asp Pro Ser Thr Leu Ser Asp Pro Leu Tyr Val Leu
695 700 705

Asp Gln Ala Val Gly Ala Tyr Leu Pro Leu Thr Thr Ala Arg Tyr
710 715 720

Ser Ala Leu Leu Ala Gly Asn Leu Arg Ile
725 730

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<223> Synthetic oligonucleotide probe

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<210> 104
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 104
ggagaatgtg gccacaac 18

<210> 105
<211> 26
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 105
gccctggcac agtgaactcca tagacg 26

<210> 106
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<220>
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<400> 106
atccacttca gcggacac 18

<210> 107
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ccagtgccag gataaccttc ttccccccag agcataacag acacg 45

<210> 108
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<212> DNA
<213> Homo sapiens

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<210> 109

<211> 555

<212> PRT

<213> Homo sapiens

<400> 109

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Leu	Leu	Ser	Leu	Pro	Ala	Gly	Ala	Asp	Val	Lys	Ala	Arg	Ser	Cys
			20					25					30	

Gly	Glu	Val	Arg	Gln	Ala	Tyr	Gly	Ala	Lys	Gly	Phe	Ser	Leu	Ala
				35				40					45	

Asp	Ile	Pro	Tyr	Gln	Glu	Ile	Ala	Gly	Glu	His	Leu	Arg	Ile	Cys
				50				55					60	

Pro	Gln	Glu	Tyr	Thr	Cys	Cys	Thr	Thr	Glu	Met	Glu	Asp	Lys	Leu
				65				70					75	

Ser	Gln	Gln	Ser	Lys	Leu	Glu	Phe	Glu	Asn	Leu	Val	Glu	Glu	Thr
				80				85					90	

Ser	His	Phe	Val	Arg	Thr	Thr	Phe	Val	Ser	Arg	His	Lys	Lys	Phe
				95				100					105	

Asp	Glu	Phe	Phe	Arg	Glu	Leu	Leu	Glu	Asn	Ala	Glu	Lys	Ser	Leu
				110				115					120	

Asn	Asp	Met	Phe	Val	Arg	Thr	Tyr	Gly	Met	Leu	Tyr	Met	Gln	Asn
				125				130					135	

Ser	Glu	Val	Phe	Gln	Asp	Leu	Phe	Thr	Glu	Leu	Lys	Arg	Tyr	Tyr
				140				145					150	

Thr	Gly	Gly	Asn	Val	Asn	Leu	Glu	Glu	Met	Leu	Asn	Asp	Phe	Trp
				155					160					165
Ala	Arg	Leu	Leu	Glu	Arg	Met	Phe	Gln	Leu	Ile	Asn	Pro	Gln	Tyr
				170					175					180
His	Phe	Ser	Glu	Asp	Tyr	Leu	Glu	Cys	Val	Ser	Lys	Tyr	Thr	Asp
				185					190					195
Gln	Leu	Lys	Pro	Phe	Gly	Asp	Val	Pro	Arg	Lys	Leu	Lys	Ile	Gln
				200					205					210
Val	Thr	Arg	Ala	Phe	Ile	Ala	Ala	Arg	Thr	Phe	Val	Gln	Gly	Leu
				215					220					225
Thr	Val	Gly	Arg	Glu	Val	Ala	Asn	Arg	Val	Ser	Lys	Val	Ser	Pro
				230					235					240
Thr	Pro	Gly	Cys	Ile	Arg	Ala	Leu	Met	Lys	Met	Leu	Tyr	Cys	Pro
				245					250					255
Tyr	Cys	Arg	Gly	Leu	Pro	Thr	Val	Arg	Pro	Cys	Asn	Asn	Tyr	Cys
				260					265					270
Leu	Asn	Val	Met	Lys	Gly	Cys	Leu	Ala	Asn	Gln	Ala	Asp	Leu	Asp
				275					280					285
Thr	Glu	Trp	Asn	Leu	Phe	Ile	Asp	Ala	Met	Leu	Leu	Val	Ala	Glu
				290					295					300
Arg	Leu	Glu	Gly	Pro	Phe	Asn	Ile	Glu	Ser	Val	Met	Asp	Pro	Ile
				305					310					315
Asp	Val	Lys	Ile	Ser	Glu	Ala	Ile	Met	Asn	Met	Gln	Glu	Asn	Ser
				320					325					330
Met	Gln	Val	Ser	Ala	Lys	Val	Phe	Gln	Gly	Cys	Gly	Gln	Pro	Lys
				335					340					345
Pro	Ala	Pro	Ala	Leu	Arg	Ser	Ala	Arg	Ser	Ala	Pro	Glu	Asn	Phe
				350					355					360
Asn	Thr	Arg	Phe	Arg	Pro	Tyr	Asn	Pro	Glu	Glu	Arg	Pro	Thr	Thr
				365					370					375
Ala	Ala	Gly	Thr	Ser	Leu	Asp	Arg	Leu	Val	Thr	Asp	Ile	Lys	Glu
				380					385					390
Lys	Leu	Lys	Leu	Ser	Lys	Lys	Val	Trp	Ser	Ala	Leu	Pro	Tyr	Thr
				395					400					405
Ile	Cys	Lys	Asp	Glu	Ser	Val	Thr	Ala	Gly	Thr	Ser	Asn	Glu	Glu
				410					415					420
Glu	Cys	Trp	Asn	Gly	His	Ser	Lys	Ala	Arg	Tyr	Leu	Pro	Glu	Ile
				425					430					435

Met Asn Asp Gly Leu Thr Asn Gln Ile Asn Asn Pro Glu Val Asp
440 445 450

Val Asp Ile Thr Arg Pro Asp Thr Phe Ile Arg Gln Gln Ile Met
455 460 465

Ala Leu Arg Val Met Thr Asn Lys Leu Lys Asn Ala Tyr Asn Gly
470 475 480

Asn Asp Val Asn Phe Gln Asp Thr Ser Asp Glu Ser Ser Gly Ser
485 490 495

Gly Ser Gly Ser Gly Cys Met Asp Asp Val Cys Pro Thr Glu Phe
500 505 510

Glu Phe Val Thr Thr Glu Ala Pro Ala Val Asp Pro Asp Arg Arg
515 520 525

Glu Val Asp Ser Ser Ala Ala Gln Arg Gly His Ser Leu Leu Ser
530 535 540

Trp Ser Leu Thr Cys Ile Val Leu Ala Leu Gln Arg Leu Cys Arg
545 550 555

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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<210> 111
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 111
tgcacagtct ctgcagtgcc cagg 24

<210> 112
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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gaatgctgga acgggcacag caaagccaga tacttgccctg 40

<210> 113
<211> 4649
<212> DNA
<213> Homo sapiens

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tagggaccgg gctttggcct tcaggctccc tagcagcggg gaaaaggaat 200
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<210> 114
<211> 515
<212> PRT
<213> Homo sapiens

<400> 114
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Gln Ala Cys Val Cys Pro Gly Lys Met Leu Ala Met Gly Ala Leu
20 25 30

Ala Gly Phe Trp Ile Leu Cys Leu Leu Thr Tyr Gly Tyr Leu Ser
35 40 45

Trp Gly Gln Ala Leu Glu Glu Glu Glu Gly Ala Leu Leu Ala
50 55 60

Gln Ala Gly Glu Lys Leu Glu Pro Ser Thr Thr Ser Thr Ser Gln
65 70 75

Pro His Leu Ile Phe Ile Leu Ala Asp Asp Gln Gly Phe Arg Asp
80 85 90

Val Gly Tyr His Gly Ser Glu Ile Lys Thr Pro Thr Leu Asp Lys
95 100 105

Leu Ala Ala Glu Gly Val Lys Leu Glu Asn Tyr Tyr Val Gln Pro
110 115 120

Ile Cys Thr Pro Ser Arg Ser Gln Phe Ile Thr Gly Lys Tyr Gln
125 130 135

Ile His Thr Gly Leu Gln His Ser Ile Ile Arg Pro Thr Gln Pro
140 145 150

Asn	Cys	Leu	Pro	Leu	Asp	Asn	Ala	Thr	Leu	Pro	Gln	Lys	Leu	Lys
		155							160				165	
Glu	Val	Gly	Tyr	Ser	Thr	His	Met	Val	Gly	Lys	Trp	His	Leu	Gly
	170								175				180	
Phe	Asn	Arg	Lys	Glu	Cys	Met	Pro	Thr	Arg	Arg	Gly	Phe	Asp	Thr
		185							190				195	
Phe	Phe	Gly	Ser	Leu	Leu	Gly	Ser	Gly	Asp	Tyr	Tyr	Thr	His	Tyr
		200							205				210	
Lys	Cys	Asp	Ser	Pro	Gly	Met	Cys	Gly	Tyr	Asp	Leu	Tyr	Glu	Asn
		215							220				225	
Asp	Asn	Ala	Ala	Trp	Asp	Tyr	Asp	Asn	Gly	Ile	Tyr	Ser	Thr	Gln
		230							235				240	
Met	Tyr	Thr	Gln	Arg	Val	Gln	Gln	Ile	Leu	Ala	Ser	His	Asn	Pro
		245							250				255	
Thr	Lys	Pro	Ile	Phe	Leu	Tyr	Thr	Ala	Tyr	Gln	Ala	Val	His	Ser
		260							265				270	
Pro	Leu	Gln	Ala	Pro	Gly	Arg	Tyr	Phe	Glu	His	Tyr	Arg	Ser	Ile
		275							280				285	
Ile	Asn	Ile	Asn	Arg	Arg	Arg	Tyr	Ala	Ala	Met	Leu	Ser	Cys	Leu
		290							295				300	
Asp	Glu	Ala	Ile	Asn	Asn	Val	Thr	Leu	Ala	Leu	Lys	Thr	Tyr	Gly
		305							310				315	
Phe	Tyr	Asn	Asn	Ser	Ile	Ile	Ile	Tyr	Ser	Ser	Asp	Asn	Gly	Gly
		320							325				330	
Gln	Pro	Thr	Ala	Gly	Gly	Ser	Asn	Trp	Pro	Leu	Arg	Gly	Ser	Lys
		335							340				345	
Gly	Thr	Tyr	Trp	Glu	Gly	Gly	Ile	Arg	Ala	Val	Gly	Phe	Val	His
		350							355				360	
Ser	Pro	Leu	Leu	Lys	Asn	Lys	Gly	Thr	Val	Cys	Lys	Glu	Leu	Val
		365							370				375	
His	Ile	Thr	Asp	Trp	Tyr	Pro	Thr	Leu	Ile	Ser	Leu	Ala	Glu	Gly
		380							385				390	
Gln	Ile	Asp	Glu	Asp	Ile	Gln	Leu	Asp	Gly	Tyr	Asp	Ile	Trp	Glu
		395							400				405	
Thr	Ile	Ser	Glu	Gly	Leu	Arg	Ser	Pro	Arg	Val	Asp	Ile	Leu	His
		410							415				420	
Asn	Ile	Asp	Pro	Tyr	Thr	Pro	Arg	Gln	Lys	Met	Ala	Pro	Gly	Gln
		425							430				435	

Gln Ala Met Gly Ser Gly Thr Leu Gln Ser Ser Gln Pro Ser Glu
440 445 450
Cys Ser Thr Gly Asn Cys Leu Gln Glu Ile Leu Ala Thr Ala Thr
455 460 465
Gly Ser Pro Leu Ser Leu Ser Ala Thr Trp Asp Arg Thr Gly Gly
470 475 480
Thr Met Asn Gly Ser Pro Cys Gln Leu Ala Lys Val Tyr Gly Phe
485 490 495
Ser Thr Ser Gln Pro Thr His Met Arg Gly Trp Thr Tyr Leu Thr
500 505 510
Gly Ile Gln Glu Ser
515

<210> 115
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 115
cccaacccaa ctgtttacctt ctgg 24

<210> 116
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 116
ctctctgagt gtacatctgt gtgg 24

<210> 117
<211> 53
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<220>
<221> unsure
<222> 33
<223> unknown base

<400> 117
gccaccctac ctcagaaact gaaggagggtt ggntattcaa cgcatatgg 50

cg^g 53

<210> 118

<211> 2260

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 2009, 2026, 2033, 2055, 2074, 2078, 2086

<223> unknown base

<400> 118

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ggaggcggcg gcttagctgc tacggggtcc ggccggcgcc ctcccggagg 100

gggctcagga ggaggaagga ggaccgtgc gagaatgcct ctgccctgga 150

gccttgcgtc cccgctgctg ctctcctggg tggcaggtgg ttgcggaaac 200

gcggccagtg caaggcatca cgggttgtta gcatggcac gtcagcctgg 250

gttctgtcac tatgaaacta aactggctg ctgctacggc tggagaagaa 300

acagcaaggg agtctgtgaa gctacatgcg aacctggatg taagtttgt 350

gagtgcgtgg gaccaaacaatgcgatgc ttccaggat acaccggaa 400

aacctgcagt caagatgtga atgagtgtgg aatgaaaccc cggccatgcc 450

aacacagatg tgtgaatacaca cacggaaagct acaagtgcctt ttgcctcagt 500

gccccatgc tcacatgcaga tgctacgtgt gtgaactcta ggacatgtgc 550

catgataaac tgtcagtaca gctgtgaaga cacagaagaa gggccacagt 600

gcctgtgtcc atcctcagga ctccgcctgg ccccaaattgg aagagactgt 650

ctagatatttgc atgaatgtgc ctctggtaaa gtcacatgtc cctacaatcg 700

aagatgtgtg aacacatttg gaagctacta ctgcaaattgt cacattgggtt 750

tgcacatgcata atatatcgtt ggacgatatg actgtataga tataaatgaa 800

tgtactatgg atagccatac gtgcagccac catgccaatt gcttcaatac 850

ccaagggtcc ttcaagtgtta aatgcaagca gggatataaa ggcaatggac 900

ttcgggtttc tgctatccctt gaaaattctg tgaaggaagt cctcagagca 950

cctggtagcca tcaaagacag aatcaagaag ttgcttgctc acaaaaaacag 1000

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gtaataataa 2260

<210> 119
<211> 338
<212> PRT
<213> Homo sapiens

<400> 119

Met Pro Leu Pro Trp Ser Leu Ala Leu Pro Leu Leu Leu Ser Trp
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Val Ala Gly Gly Phe Gly Asn Ala Ala Ser Ala Arg His His Gly
20 25 30

Leu Leu Ala Ser Ala Arg Gln Pro Gly Val Cys His Tyr Gly Thr
35 40 45

Lys Leu Ala Cys Cys Tyr Gly Trp Arg Arg Asn Ser Lys Gly Val
50 55 60

Cys Glu Ala Thr Cys Glu Pro Gly Cys Lys Phe Gly Glu Cys Val
65 70 75

Gly Pro Asn Lys Cys Arg Cys Phe Pro Gly Tyr Thr Gly Lys Thr
80 85 90

Cys Ser Gln Asp Val Asn Glu Cys Gly Met Lys Pro Arg Pro Cys
95 100 105

Gln His Arg Cys Val Asn Thr His Gly Ser Tyr Lys Cys Phe Cys
110 115 120

Leu Ser Gly His Met Leu Met Pro Asp Ala Thr Cys Val Asn Ser
125 130 135

Arg Thr Cys Ala Met Ile Asn Cys Gln Tyr Ser Cys Glu Asp Thr
140 145 150

Glu Glu Gly Pro Gln Cys Leu Cys Pro Ser Ser Gly Leu Arg Leu
155 160 165

Ala Pro Asn Gly Arg Asp Cys Leu Asp Ile Asp Glu Cys Ala Ser
170 175 180

Gly Lys Val Ile Cys Pro Tyr Asn Arg Arg Cys Val Asn Thr Phe
185 190 195

Gly Ser Tyr Tyr Cys Lys Cys His Ile Gly Phe Glu Leu Gln Tyr
200 205 210

Ile Ser Gly Arg Tyr Asp Cys Ile Asp Ile Asn Glu Cys Thr Met
215 220 225

Asp Ser His Thr Cys Ser His His Ala Asn Cys Phe Asn Thr Gln
230 235 240

Gly Ser Phe Lys Cys Lys Cys Lys Gln Gly Tyr Lys Gly Asn Gly
245 250 255

Leu Arg Cys Ser Ala Ile Pro Glu Asn Ser Val Lys Glu Val Leu
260 265 270

Arg Ala Pro Gly Thr Ile Lys Asp Arg Ile Lys Lys Leu Leu Ala
275 280 285

His Lys Asn Ser Met Lys Lys Lys Ala Lys Ile Lys Asn Val Thr
290 295 300

Pro Glu Pro Thr Arg Thr Pro Thr Pro Lys Val Asn Leu Gln Pro
305 310 315

Phe Asn Tyr Glu Glu Ile Val Ser Arg Gly Gly Asn Ser His Gly
320 325 330

Gly Lys Lys Gly Asn Glu Glu Lys
335

<210> 120

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 120

cctcagtggc cacatgctca tg 22

<210> 121

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 121

ggctgcacgt atggctatcc atag 24

<210> 122

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 122

gataaaactgt cagtacagct gtgaagacac agaagaagg ccacagtgcc 50

<210> 123

<211> 1199

<212> DNA

<213> Homo sapiens

<400> 123

gggagctgct gctgtggctg ctggtgctgt gcgcgctgct cctgctttg 50

gtgcagctgc tgcgttccct gagggctgac ggcgaccta cgctactatg 100

ggcccgagtgg cagggacac gcccagaatg ggagctgact gatatggtgg 150

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ttgtctaaac taggagtttc tcttgtgctg tcagccagaa gagtgcattga 250

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aatggaaaac atgaaaacag caatcttctt atgcttctga ataatcaaag 1100
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aatgaaaataataat aataaaagat tgccatgaat cttgcaaaa 1199

<210> 124
<211> 289
<212> PRT
<213> Homo sapiens

<400> 124
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1 5 10 15
Leu Ala Tyr Gln Leu Ser Lys Leu Gly Val Ser Leu Val Leu Ser
20 25 30
Ala Arg Arg Val His Glu Leu Glu Arg Val Lys Arg Arg Cys Leu
35 40 45
Glu Asn Gly Asn Leu Lys Glu Lys Asp Ile Leu Val Leu Pro Leu
50 55 60

Asp	Leu	Thr	Asp	Thr	Gly	Ser	His	Glu	Ala	Ala	Thr	Lys	Ala	Val
65								70						75
Leu	Gln	Glu	Phe	Gly	Arg	Ile	Asp	Ile	Leu	Val	Asn	Asn	Gly	Gly
80								85						90
Met	Ser	Gln	Arg	Ser	Leu	Cys	Met	Asp	Thr	Ser	Leu	Asp	Val	Tyr
95								100						105
Arg	Lys	Leu	Ile	Glu	Leu	Asn	Tyr	Leu	Gly	Thr	Val	Ser	Leu	Thr
110								115						120
Lys	Cys	Val	Leu	Pro	His	Met	Ile	Glu	Arg	Lys	Gln	Gly	Lys	Ile
125								130						135
Val	Thr	Val	Asn	Ser	Ile	Leu	Gly	Ile	Ile	Ser	Val	Pro	Leu	Ser
140								145						150
Ile	Gly	Tyr	Cys	Ala	Ser	Lys	His	Ala	Leu	Arg	Gly	Phe	Phe	Asn
155								160						165
Gly	Leu	Arg	Thr	Glu	Leu	Ala	Thr	Tyr	Pro	Gly	Ile	Ile	Val	Ser
170								175						180
Asn	Ile	Cys	Pro	Gly	Pro	Val	Gln	Ser	Asn	Ile	Val	Glu	Asn	Ser
185								190						195
Leu	Ala	Gly	Glu	Val	Thr	Lys	Thr	Ile	Gly	Asn	Asn	Gly	Asp	Gln
200								205						210
Ser	His	Lys	Met	Thr	Thr	Ser	Arg	Cys	Val	Arg	Leu	Met	Leu	Ile
215								220						225
Ser	Met	Ala	Asn	Asp	Leu	Lys	Glu	Val	Trp	Ile	Ser	Glu	Gln	Pro
230								235						240
Phe	Leu	Leu	Val	Thr	Tyr	Leu	Trp	Gln	Tyr	Met	Pro	Thr	Trp	Ala
245								250						255
Trp	Trp	Ile	Thr	Asn	Lys	Met	Gly	Lys	Lys	Arg	Ile	Glu	Asn	Phe
260								265						270
Lys	Ser	Gly	Val	Asp	Ala	Asp	Ser	Ser	Tyr	Phe	Lys	Ile	Phe	Lys
275								280						285
Thr	Lys	His	Asp											

<210> 125
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 125

gcaatgaact gggagctgc 19
<210> 126
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 126
ctgtgaatag catcctggg 19

<210> 127
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 127
cttttcaagc cactggaggg 20

<210> 128
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 128
ctgttagacat ccaagctggatcc 24

<210> 129
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 129
aagagtctgc atccacaccca ctc 23

<210> 130
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 130
acctgacgct actatgggcc gagtggcagg gacgacgccc agaatg 46

<210> 131
<211> 2365
<212> DNA
<213> Homo sapiens

<400> 131
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caatcaatcc aacagcatat tcggttgcat cttctacaca ctacagctat 150
tgttaggttg cctgcggaca cgctggcct ctgtcctgtat gctgctgagc 200
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tgttacaaaa taaaa 2365

<210> 132
<211> 571
<212> PRT
<213> Homo sapiens

<400> 132
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20 25 30

Ile Thr Thr Tyr Ala Ile Asn Val Ser Leu Met Trp Leu Ser Phe
35 40 45

Arg Lys Val Gln Glu Pro Gln Gly Lys Ala Lys Arg His Gly Asn
50 55 60

Thr Val Pro Gly Glu Trp Pro Trp Gln Ala Ser Val Arg Arg Gln
65 70 75

Gly Ala His Ile Cys Ser Gly Ser Leu Val Ala Asp Thr Trp Val
80 85 90

Leu Thr Ala Ala His Cys Phe Glu Lys Ala Ala Ala Thr Glu Leu
95 100 105

Asn Ser Trp Ser Val Val Leu Gly Ser Leu Gln Arg Glu Gly Leu
110 115 120

Ser Pro Gly Ala Glu Glu Val Gly Val Ala Ala Leu Gln Leu Pro
125 130 135

Arg Ala Tyr Asn His Tyr Ser Gln Gly Ser Asp Leu Ala Leu Leu
140 145 150

Gln Leu Ala His Pro Thr Thr His Thr Pro Leu Cys Leu Pro Gln
155 160 165

Pro Ala His Arg Phe Pro Phe Gly Ala Ser Cys Trp Ala Thr Gly
170 175 180

Trp Asp Gln Asp Thr Ser Asp Ala Pro Gly Thr Leu Arg Asn Leu
185 190 195

Arg Leu Arg Leu Ile Ser Arg Pro Thr Cys Asn Cys Ile Tyr Asn
200 205 210

Gln Leu His Gln Arg His Leu Ser Asn Pro Ala Arg Pro Gly Met
215 220 225

Leu Cys Gly Gly Pro Gln Pro Gly Val Gln Gly Pro Cys Gln Gly
230 235 240

Asp Ser Gly Gly Pro Val Leu Cys Leu Glu Pro Asp Gly His Trp
245 250 255

Val Gln Ala Gly Ile Ile Ser Phe Ala Ser Ser Cys Ala Gln Glu
260 265 270

Asp Ala Pro Val Leu Leu Thr Asn Thr Ala Ala His Ser Ser Trp
275 280 285

Leu Gln Ala Arg Val Gln Gly Ala Ala Phe Leu Ala Gln Ser Pro
290 295 300

Glu Thr Pro Glu Met Ser Asp Glu Asp Ser Cys Val Ala Cys Gly
305 310 315

Ser Leu Arg Thr Ala Gly Pro Gln Ala Gly Ala Pro Ser Pro Trp
 320 325 330

 Pro Trp Glu Ala Arg Leu Met His Gln Gly Gln Leu Ala Cys Gly
 335 340 345

 Gly Ala Leu Val Ser Glu Glu Ala Val Leu Thr Ala Ala His Cys
 350 355 360

 Phe Ile Gly Arg Gln Ala Pro Glu Glu Trp Ser Val Gly Leu Gly
 365 370 375

 Thr Arg Pro Glu Glu Trp Gly Leu Lys Gln Leu Ile Leu His Gly
 380 385 390

 Ala Tyr Thr His Pro Glu Gly Gly Tyr Asp Met Ala Leu Leu Leu
 395 400 405

 Leu Ala Gln Pro Val Thr Leu Gly Ala Ser Leu Arg Pro Leu Cys
 410 415 420

 Leu Pro Tyr Pro Asp His His Leu Pro Asp Gly Glu Arg Gly Trp
 425 430 435

 Val Leu Gly Arg Ala Arg Pro Gly Ala Gly Ile Ser Ser Leu Gln
 440 445 450

 Thr Val Pro Val Thr Leu Leu Gly Pro Arg Ala Cys Ser Arg Leu
 455 460 465

 His Ala Ala Pro Gly Gly Asp Gly Ser Pro Ile Leu Pro Gly Met
 470 475 480

Val Cys Thr Ser Ala Val Gly Glu Leu Pro Ser Cys Glu Gly Leu
 485 490 495

 Ser Gly Ala Pro Leu Val His Glu Val Arg Gly Thr Trp Phe Leu
 500 505 510

 Ala Gly Leu His Ser Phe Gly Asp Ala Cys Gln Gly Pro Ala Arg
 515 520 525

 Pro Ala Val Phe Thr Ala Leu Pro Ala Tyr Glu Asp Trp Val Ser
 530 535 540

 Ser Leu Asp Trp Gln Val Tyr Phe Ala Glu Glu Pro Glu Pro Glu
 545 550 555

 Ala Glu Pro Gly Ser Cys Leu Ala Asn Ile Ser Gln Pro Thr Ser
 560 565 570

Cys

<210> 133
 <211> 24
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 133
cctgtgctgt gcctcgagcc tgac 24

<210> 134
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 134
gtgggcagca gtagcaccg cctc 24

<210> 135
<211> 45
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 135
ggctggcatc atcagcttg catcaagctg tgccaggag gacgc 45

<210> 136
<211> 1998
<212> DNA
<213> Homo_sapiens

<400> 136
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acttctaatt taaatgtggg actcggaggg atttgtaaa ctgggggtat 1950

attttgggaa aaataaatgt ctttgtaaaa aaaaaaaaaa aaaaaaaaa 1998

<210> 137

<211> 316

<212> PRT

<213> Homo sapiens

<220>

<221> unsure

<222> 233

<223> unknown amino acid

<400> 137

Met Leu Arg Arg Arg Gly Ser Pro Gly Met Gly Val His Val Gly
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Val Gln Val Pro Glu Asp Pro Val Val Ala Leu Val Gly Thr Asp
35 40 45

Ala Thr Leu Cys Cys Ser Phe Ser Pro Glu Pro Gly Phe Ser Leu
50 55 60

Ala Gln Leu Asn Leu Ile Trp Gln Leu Thr Asp Thr Lys Gln Leu
65 70 75

Val His Ser Phe Ala Glu Gly Gln Asp Gln Gly Ser Ala Tyr Ala
80 85 90

Asn Arg Thr Ala Leu Phe Pro Asp Leu Leu Ala Gln Gly Asn Ala
95 100 105

Ser Leu Arg Leu Gln Arg Val Arg Val Ala Asp Glu Gly Ser Phe
110 115 120

Thr Cys Phe Val Ser Ile Arg Asp Phe Gly Ser Ala Ala Val Ser
125 130 135

Leu Gln Val Ala Ala Pro Tyr Ser Lys Pro Ser Met Thr Leu Glu
140 145 150

Pro Asn Lys Asp Leu Arg Pro Gly Asp Thr Val Thr Ile Thr Cys
155 160 165

Ser Ser Tyr Gln Gly Tyr Pro Glu Ala Glu Val Phe Trp Gln Asp
170 175 180

Gly Gln Gly Val Pro Leu Thr Gly Asn Val Thr Thr Ser Gln Met
185 190 195

Ala Asn Glu Gln Gly Leu Phe Asp Val His Ser Val Leu Arg Val
200 205 210

Val Leu Gly Ala Asn Gly Thr Tyr Ser Cys Leu Val Arg Asn Pro
215 220 225

Val Leu Gln Gln Asp Ala His Xaa Ser Val Thr Ile Thr Gly Gln
230 235 240

Pro Met Thr Phe Pro Pro Glu Ala Leu Trp Val Thr Val Gly Leu
245 250 255

Ser Val Cys Leu Ile Ala Leu Leu Val Ala Leu Ala Phe Val Cys
260 265 270

Trp Arg Lys Ile Lys Gln Ser Cys Glu Glu Glu Asn Ala Gly Ala
275 280 285

Glu Asp Gln Asp Gly Glu Gly Glu Ser Lys Thr Ala Leu Gln
290 295 300

Pro Leu Lys His Ser Asp Ser Lys Glu Asp Asp Gly Gln Glu Ile
305 310 315

Ala

<210> 138
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 138
ctggcacagc tcaacctcat ctgg 24

<210> 139
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 139
gctgtctgtc tgtctcattg 20

<210> 140
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<220>
<223> Synthetic oligonucleotide probe

<400> 140
ggacacagta tactgaccac 20

<210> 141
<211> 24

<212> DNA
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<400> 141
tgcgaaccag gcagctgtaa gtgc 24

<210> 142
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<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 142
tggagaaga gggtggtgat gtgg 24

<210> 143
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 143
cagctgacag acaccaaaca gctggtgcac agtttcaccc aaggc 45

<210> 144
<211> 2336
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 1620, 1673
<223> unknown base

<400> 144
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tacgttctta aatctatgaa gtcgaggac ct ttcgtgc tttttaggg 150
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<210> 145

<211> 211

<212> PRT

<213> Homo sapiens

<400> 145

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				20				25				30		

Val	Leu	Gln	Lys	Pro	Phe	Ile	Cys	His	Arg	Lys	Thr	Lys	Gly	Gly
					35				40			45		

Asp	Leu	Met	Leu	Val	His	Tyr	Glu	Gly	Tyr	Leu	Glu	Lys	Asp	Gly
				50					55			60		

Ser	Leu	Phe	His	Ser	Thr	His	Lys	His	Asn	Asn	Gly	Gln	Pro	Ile
					65				70			75		

Trp	Phe	Thr	Leu	Gly	Ile	Leu	Glu	Ala	Leu	Lys	Gly	Trp	Asp	Gln
				80					85			90		

Gly	Leu	Lys	Gly	Met	Cys	Val	Gly	Glu	Lys	Arg	Lys	Leu	Ile	Ile
				95				100			105			

Pro	Pro	Ala	Leu	Gly	Tyr	Gly	Lys	Glu	Gly	Lys	Gly	Lys	Ile	Pro
					110			115			120			

Pro	Glu	Ser	Thr	Leu	Ile	Phe	Asn	Ile	Asp	Leu	Glu	Ile	Arg	
				125				130			135			

Asn	Gly	Pro	Arg	Ser	His	Glu	Ser	Phe	Gln	Glu	Met	Asp	Leu	Asn
					140				145			150		

Asp Asp Trp Lys Leu Ser Lys Asp Glu Val Lys Ala Tyr Leu Lys
155 160 165

Lys Glu Phe Glu Lys His Gly Ala Val Val Asn Glu Ser His His
170 175 180

Asp Ala Leu Val Glu Asp Ile Phe Asp Lys Glu Asp Glu Asp Lys
185 190 195

Asp Gly Phe Ile Ser Ala Arg Glu Phe Thr Tyr Lys His Asp Glu
200 205 210

Leu

<210> 146

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 146

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<210> 147

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 147

gcccgagaca ggaggaatga tgagc 25

<210> 148

<211> 49

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 148

gtggaacgca gtcttgactc tgttcgtaac ttctttgatt ggggctttg 49

<210> 149

<211> 2196

<212> DNA

<213> Homo sapiens

<400> 149

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<210> 150

<211> 215

<212> PRT

<213> Homo_sapiens

<400> 150

Met	His	Arg	Asp	Ala	Trp	Leu	Pro	Arg	Pro	Ala	Phe	Ser	Leu	Thr
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Gly	Leu	Ser	Leu	Phe	Phe	Ser	Leu	Val	Pro	Pro	Gly	Arg	Ser	Met
					20				25					30

Glu	Val	Thr	Val	Pro	Ala	Thr	Leu	Asn	Val	Leu	Asn	Gly	Ser	Asp
					35				40					45

Ala	Arg	Leu	Pro	Cys	Thr	Phe	Asn	Ser	Cys	Tyr	Thr	Val	Asn	His
					50				55					60

Lys	Gln	Phe	Ser	Leu	Asn	Trp	Thr	Tyr	Gln	Glu	Cys	Asn	Asn	Cys
					65				70					75

Ser	Glu	Glu	Met	Phe	Leu	Gln	Phe	Arg	Met	Lys	Ile	Ile	Asn	Leu
					80				85					90

Lys	Leu	Glu	Arg	Phe	Gln	Asp	Arg	Val	Glu	Phe	Ser	Gly	Asn	Pro
					95				100					105

Ser Lys Tyr Asp Val Ser Val Met Leu Arg Asn Val Gln Pro Glu

	110	115	120
Asp Glu Gly Ile Tyr Asn Cys Tyr Ile Met Asn Pro Pro Asp Arg			
125	130	135	
His Arg Gly His Gly Lys Ile His Leu Gln Val Leu Met Glu Glu			
140	145	150	
Pro Pro Glu Arg Asp Ser Thr Val Ala Val Ile Val Gly Ala Ser			
155	160	165	
Val Gly Gly Phe Leu Ala Val Val Ile Leu Val Leu Met Val Val			
170	175	180	
Lys Cys Val Arg Arg Lys Lys Glu Gln Lys Leu Ser Thr Asp Asp			
185	190	195	
Leu Lys Thr Glu Glu Glu Gly Lys Thr Asp Gly Glu Gly Asn Pro			
200	205	210	
Asp Asp Gly Ala Lys			
215			

<210> 151
<211> 524
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 103, 233
<223> unknown base

<400> 151
gttgtatatg tcctgaagta catccgtgca ttttttttag catccaacca 50
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gccctgcctt cagcctcactg gggctcagtc tcttttctc ttgggtgcca 200
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ctctgaggag atgttcctcc agttccgcat gaagatcatt aacctgaagc 400
tggagcggtt tcaagaccgc gtggagttct cagggAACCC cAGCAAGTAC 450
gatgtgtcgg tcatgtcgg aaacgtgcag ccggaggatg agggattta 500
caactgctac atcatgaacc cccc 524

<210> 152

<211> 368
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 56, 123
<223> unknown base

<400> 152
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gaggtncaca tacctgccac cctcaacgtc ctcaatggct ttgacgcccc 100
cctgccctgc acottcaact ccngctacac agtgaaccac aaacagttct 150
ccctgaactg gatttaccag gagtgcaaca actggctctg aggagatgtt 200
cctccagttc ccgcatggaa gatcatttaa cctgaaagct ggaagcggtt 250
ttcaagaacc gcgtggaagt ttctcaggaa accccagcaa gtacgatgtg 300
tcggtgatgc tgagaaaacgt gcagccggag gatgagggga tttacaactg 350
ctacatcatg aacccccc 368

<210> 153
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 153
acggagcatg gaggtccaca gtac 24

<210> 154
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 154
gcacgtttct cagcatcacc gac 23

<210> 155
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 155

cgccctgccct gcaccccaa ctcctgctac acagtgaacc acaaacagtt 50
<210> 156
<211> 2680
<212> DNA
<213> Homo sapiens

<400> 156
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cgcggaccga ggcgtcccg ccggacgtca ccccccaagt gtgctggtcc 150
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atgctgtaaa aaaaaaaaaa aaaaaaaaaa 2680

<210> 157

<211> 412

<212> PRT

<213> Homo Sapien

<400> 157

Met Gly Leu His Leu Arg Pro Tyr Arg Val Gly Leu Leu Pro Asp
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Gly Leu Leu Phe Leu Leu Leu Met Leu Leu Ala Asp Pro
20 25 30

Ala Leu Pro Ala Gly Arg His Pro Pro Val Val Leu Val Pro Gly
35 40 45

Asp Leu Gly Asn Gln Leu Glu Ala Lys Leu Asp Lys Pro Thr Val
50 55 60

Val His Tyr Leu Cys Ser Lys Lys Thr Glu Ser Tyr Phe Thr Ile
65 70 75

Trp Leu Asn Leu Glu Leu Leu Leu Pro Val Ile Ile Asp Cys Trp
80 85 90

Ile Asp Asn Ile Arg Leu Val Tyr Asn Lys Thr Ser Arg Ala Thr
95 100 105

Gln Phe Pro Asp Gly Val Asp Val Arg Val Pro Gly Phe Gly Lys
110 115 120

Thr Phe Ser Leu Glu Phe Leu Asp Pro Ser Lys Ser Ser Val Gly
125 130 135

Ser Tyr Phe His Thr Met Val Glu Ser Leu Val Gly Trp Gly Tyr
140 145 150

Thr Arg Gly Glu Asp Val Arg Gly Ala Pro Tyr Asp Trp Arg Arg
155 160 165

Ala Pro Asn Glu Asn Gly Pro Tyr Phe Leu Ala Leu Arg Glu Met
170 175 180

Ile Glu Glu Met Tyr Gln Leu Tyr Gly Gly Pro Val Val Leu Val
185 190 195

Ala His Ser Met Gly Asn Met Tyr Thr Leu Tyr Phe Leu Gln Arg
200 205 210

Gln Pro Gln Ala Trp Lys Asp Lys Tyr Ile Arg Ala Phe Val Ser
215 220 225

Leu Gly Ala Pro Trp Gly Gly Val Ala Lys Thr Leu Arg Val Leu
230 235 240

Ala Ser Gly Asp Asn Asn Arg Ile Pro Val Ile Gly Pro Leu Lys

245	250	255
Ile Arg Glu Gln Gln Arg Ser Ala Val Ser Thr Ser Trp Leu Leu		
260	265	270
Pro Tyr Asn Tyr Thr Trp Ser Pro Glu Lys Val Phe Val Gln Thr		
275	280	285
Pro Thr Ile Asn Tyr Thr Leu Arg Asp Tyr Arg Lys Phe Phe Gln		
290	295	300
Asp Ile Gly Phe Glu Asp Gly Trp Leu Met Arg Gln Asp Thr Glu		
305	310	315
Gly Leu Val Glu Ala Thr Met Pro Pro Gly Val Gln Leu His Cys		
320	325	330
Leu Tyr Gly Thr Gly Val Pro Thr Pro Asp Ser Phe Tyr Tyr Glu		
335	340	345
Ser Phe Pro Asp Arg Asp Pro Lys Ile Cys Phe Gly Asp Gly Asp		
350	355	360
Gly Thr Val Asn Leu Lys Ser Ala Leu Gln Cys Gln Ala Trp Gln		
365	370	375
Ser Arg Gln Glu His Gln Val Leu Leu Gln Glu Leu Pro Gly Ser		
380	385	390
Glu His Ile Glu Met Leu Ala Asn Ala Thr Thr Leu Ala Tyr Leu		
395	400	405
Lys Arg Val Leu Leu Gly Pro		
410		

<210> 158
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 158
ctggggctac acacgggtg agg 23

<210> 159
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 159
ggtgccgctg cagaaagtag agcg 24

<210> 160
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 160
cccccaaatg aaaacgggcc ctacttcctg gccctccgcg agatg 45

<210> 161
<211> 1512
<212> DNA
<213> Homo sapiens

<400> 161
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atggagagcg gggctacgg cgccggcaag gcggggcgct cttcgacct 100
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<210> 162

<211> 224

<212> PRT

<213> Homo sapiens

<400> 162

Met	Glu	Ser	Gly	Ala	Tyr	Gly	Ala	Ala	Lys	Ala	Gly	Gly	Ser	Phe
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Asp	Leu	Arg	Arg	Phe	Leu	Thr	Gln	Pro	Gln	Val	Val	Ala	Arg	Ala
				20					25					30

Val	Cys	Leu	Val	Phe	Ala	Leu	Ile	Val	Phe	Ser	Cys	Ile	Tyr	Gly
					35				40					45

Glu	Gly	Tyr	Ser	Asn	Ala	His	Glu	Ser	Lys	Gln	Met	Tyr	Cys	Val
					50				55					60

Phe	Asn	Arg	Asn	Glu	Asp	Ala	Cys	Arg	Tyr	Gly	Ser	Ala	Ile	Gly
					65				70					75

Val	Leu	Ala	Phe	Leu	Ala	Ser	Ala	Phe	Phe	Leu	Val	Val	Asp	Ala
					80				85					90

Tyr	Phe	Pro	Gln	Ile	Ser	Asn	Ala	Thr	Asp	Arg	Lys	Tyr	Leu	Val
				95					100					105

Ile	Gly	Asp	Leu	Leu	Phe	Ser	Ala	Leu	Trp	Thr	Phe	Leu	Trp	Phe
					110				115					120

Val	Gly	Phe	Cys	Phe	Leu	Thr	Asn	Gln	Trp	Ala	Val	Thr	Asn	Pro
					125				130					135

Lys	Asp	Val	Leu	Val	Gly	Ala	Asp	Ser	Val	Arg	Ala	Ala	Ile	Thr
					140				145					150

Phe Ser Phe Phe Ser Ile Phe Ser Trp Gly Val Leu Ala Ser Leu
155 160 165

Ala Tyr Gln Arg Tyr Lys Ala Gly Val Asp Asp Phe Ile Gln Asn
170 175 180

Tyr Val Asp Pro Thr Pro Asp Pro Asn Thr Ala Tyr Ala Ser Tyr
185 190 195

Pro Gly Ala Ser Val Asp Asn Tyr Gln Gln Pro Pro Phe Thr Gln
200 205 210

Asn Ala Glu Thr Thr Glu Gly Tyr Gln Pro Pro Pro Val Tyr
215 220

<210> 163
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 163
tggcttcgc cttgatcgtg ttct 24

<210> 164
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<212> DNA
<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 164
gtgtactgag cggcggttag 20

<210> 165
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 165
ctgaagggtga tggctgccct cac 23

<210> 166
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 166
ccaggaggtt catggaaag tcc 23

<210> 167
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 167
ccacgagtct aagcagatgt actgcgtgtt caaccgcaac gaggatgcct 50

<210> 168
<211> 3143
<212> DNA
<213> Homo sapiens

<400> 168
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caggaggtgg catcttgtct cgtccctgat gtctgctcca gtatggcag 2650
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aagggtggga agtcctgact ccagggtcct tgccccaccc ctgcctgcca 3050
cctggccct cacagccag accctcaactg ggaggtgagc tcagctgccc 3100
tttggaaataa agctgcctga tcaaaaaaaaaaaa aaa 3143

<210> 169

<211> 802

<212> PRT

<213> Homo sapiens

<400> 169

Met	Pro	Val	Ala	Glu	Ala	Pro	Gln	Val	Ala	Gly	Gly	Gln	Gly	Asp
1				5					10				15	

Gly	Gly	Asp	Gly	Glu	Glu	Ala	Glu	Pro	Glu	Gly	Met	Phe	Lys	Ala
									25				30	

Cys	Glu	Asp	Ser	Lys	Arg	Lys	Ala	Arg	Gly	Tyr	Leu	Arg	Leu	Val
									40				45	

Pro	Leu	Phe	Val	Leu	Leu	Ala	Leu	Leu	Val	Leu	Ala	Ser	Ala	Gly
									55				60	

Val	Leu	Leu	Trp	Tyr	Phe	Leu	Gly	Tyr	Lys	Ala	Glu	Val	Met	Val
									65				70	75

Ser	Gln	Val	Tyr	Ser	Gly	Ser	Leu	Arg	Val	Leu	Asn	Arg	His	Phe
									80				85	90

Ser Gln Asp Leu Thr Arg Arg Glu Ser Ser Ala Phe Arg Ser Glu

95 100 105

Thr Ala Lys Ala Gln Lys Met Leu Lys Glu Leu Ile Thr Ser Thr
110 115 120

Arg Leu Gly Thr Tyr Tyr Asn Ser Ser Ser Val Tyr Ser Phe Gly
125 130 135

Glu Gly Pro Leu Thr Cys Phe Phe Trp Phe Ile Leu Gln Ile Pro
140 145 150

Glu His Arg Arg Leu Met Leu Ser Pro Glu Val Val Gln Ala Leu
155 160 165

Leu Val Glu Glu Leu Leu Ser Thr Val Asn Ser Ser Ala Ala Val
170 175 180

Pro Tyr Arg Ala Glu Tyr Glu Val Asp Pro Glu Gly Leu Val Ile
185 190 195

Leu Glu Ala Ser Val Lys Asp Ile Ala Ala Leu Asn Ser Thr Leu
200 205 210

Gly Cys Tyr Arg Tyr Ser Tyr Val Gly Gln Gly Gln Val Leu Arg
215 220 225

Leu Lys Gly Pro Asp His Leu Ala Ser Ser Cys Leu Trp His Leu
230 235 240

Gln Gly Pro Lys Asp Leu Met Leu Lys Leu Arg Leu Glu Trp Thr
245 250 255

Leu Ala Glu Cys Arg Asp Arg Leu Ala Met Tyr Asp Val Ala Gly
260 265 270

Pro Leu Glu Lys Arg Leu Ile Thr Ser Val Tyr Gly Cys Ser Arg
275 280 285

Gln Glu Pro Val Val Glu Val Leu Ala Ser Gly Ala Ile Met Ala
290 295 300

Val Val Trp Lys Lys Gly Leu His Ser Tyr Tyr Asp Pro Phe Val
305 310 315

Leu Ser Val Gln Pro Val Val Phe Gln Ala Cys Glu Val Asn Leu
320 325 330

Thr Leu Asp Asn Arg Leu Asp Ser Gln Gly Val Leu Ser Thr Pro
335 340 345

Tyr Phe Pro Ser Tyr Tyr Ser Pro Gln Thr His Cys Ser Trp His
350 355 360

Leu Thr Val Pro Ser Leu Asp Tyr Gly Leu Ala Leu Trp Phe Asp
365 370 375

Ala Tyr Ala Leu Arg Arg Gln Lys Tyr Asp Leu Pro Cys Thr Gln

	380	385	390
Gly Gln Trp Thr Ile Gln Asn Arg Arg Leu Cys Gly Leu Arg Ile			
395	400	405	
Leu Gln Pro Tyr Ala Glu Arg Ile Pro Val Val Ala Thr Ala Gly			
410	415	420	
Ile Thr Ile Asn Phe Thr Ser Gln Ile Ser Leu Thr Gly Pro Gly			
425	430	435	
Val Arg Val His Tyr Gly Leu Tyr Asn Gln Ser Asp Pro Cys Pro			
440	445	450	
Gly Glu Phe Leu Cys Ser Val Asn Gly Leu Cys Val Pro Ala Cys			
455	460	465	
Asp Gly Val Lys Asp Cys Pro Asn Gly Leu Asp Glu Arg Asn Cys			
470	475	480	
Val Cys Arg Ala Thr Phe Gln Cys Lys Glu Asp Ser Thr Cys Ile			
485	490	495	
Ser Leu Pro Lys Val Cys Asp Gly Gln Pro Asp Cys Leu Asn Gly			
500	505	510	
Ser Asp Glu Glu Gln Cys Gln Glu Gly Val Pro Cys Gly Thr Phe			
515	520	525	
Thr Phe Gln Cys Glu Asp Arg Ser Cys Val Lys Lys Pro Asn Pro			
530	535	540	
Gln Cys Asp Gly Arg Pro Asp Cys Arg Asp Gly Ser Asp Glu Glu			
545	550	555	
His Cys Asp Cys Gly Leu Gln Gly Pro Ser Ser Arg Ile Val Gly			
560	565	570	
Gly Ala Val Ser Ser Glu Gly Glu Trp Pro Trp Gln Ala Ser Leu			
575	580	585	
Gln Val Arg Gly Arg His Ile Cys Gly Gly Ala Leu Ile Ala Asp			
590	595	600	
Arg Trp Val Ile Thr Ala Ala His Cys Phe Gln Glu Asp Ser Met			
605	610	615	
Ala Ser Thr Val Leu Trp Thr Val Phe Leu Gly Lys Val Trp Gln			
620	625	630	
Asn Ser Arg Trp Pro Gly Glu Val Ser Phe Lys Val Ser Arg Leu			
635	640	645	
Leu Leu His Pro Tyr His Glu Glu Asp Ser His Asp Tyr Asp Val			
650	655	660	
Ala Leu Leu Gln Leu Asp His Pro Val Val Arg Ser Ala Ala Val			

665	670	675
Arg Pro Val Cys Leu Pro Ala Arg Ser His Phe Phe Glu Pro Gly		
680	685	690
Leu His Cys Trp Ile Thr Gly Trp Gly Ala Leu Arg Glu Gly Gly		
695	700	705
Pro Ile Ser Asn Ala Leu Gln Lys Val Asp Val Gln Leu Ile Pro		
710	715	720
Gln Asp Leu Cys Ser Glu Ala Tyr Arg Tyr Gln Val Thr Pro Arg		
725	730	735
Met Leu Cys Ala Gly Tyr Arg Lys Gly Lys Lys Asp Ala Cys Gln		
740	745	750
Gly Asp Ser Gly Gly Pro Leu Val Cys Lys Ala Leu Ser Gly Arg		
755	760	765
Trp Phe Leu Ala Gly Leu Val Ser Trp Gly Leu Gly Cys Gly Arg		
770	775	780
Pro Asn Tyr Phe Gly Val Tyr Thr Arg Ile Thr Gly Val Ile Ser		
785	790	795
Trp Ile Gln Gln Val Val Thr		
800		

<210> 170
<211> 1327
<212> DNA
<213> Homo_sapiens

<400> 170
gcacccaggg ccagtggacg atccagaaca ggaggctgtg tggcttgcgc 50
atcctgcagc cctacgccga gaggatcccc gtggtgccca cggccgggat 100
caccatcaac ttcacccccc agatccctt caccggggcc ggtgtgcggg 150
tgcactatgg cttgtacaac cagtcggacc cctgccctgg agagttccctc 200
tgttctgtga atggactctg tgtccctgcc tgtgtgggg tcaaggactg 250
cccccaacggc ctggatgaga gaaactgcgt ttgcagagcc acattccagt 300
gcaaagagga cagcacatgc atctcactgc ccaaggtctg tcatggcag 350
cctgattgtc tcaacggcag cgatgaagag cagtgccagg aaggggtgcc 400
atgtgggaca ttcacccccc agtgtgagga ccggagctgc gtgaagaagc 450
ccaacccgca gtgtgatggg cggcccgact gcagggacgg ctcggatgag 500
gagcactgtg actgtggcct ccagggcccc tccagccgca ttgttgggg 550

agctgtgtcc tccgagggtg agtggccatg gcaggccagc ctccaggttc 600
ggggtcgaca catctgtggg ggggcctca tcgctgaccg ctgggtgata 650
acagctgccc actgcttcca ggaggacagc atggcctcca cggtgctgtg 700
gaccgtgttc ctggcaagg tgtggcagaa ctcgcgctgg cctggagagg 750
tgtccttcaa ggtgagccgc ctgctcctgc acccgtagca cgaagaggac 800
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ctcgccgccc gtgcgcggc tctgcctgcc cgccgcgtcc cacttcttcg 900
agccccggcct gcactgctgg attacgggct ggggcgcctt gcgcgagggc 950
ggcccccattca gcaacgctct gcagaaagt gatgtgcagt tgatcccaca 1000
ggacctgtgc agcgaggcct atcgctacca ggtgacgcca cgcatgctgt 1050
gtgccggcta ccgcaagggc aagaaggatg cctgtcaggg tgactcaggt 1100
ggtcccgctgg tgtgcaaggc actcagtggc cgctggttcc tggcggggct 1150
ggtcagctgg ggcctggct gtggccggcc taactacttc ggcgtctaca 1200
cccgcatcac aggtgtgatc agctggatcc agcaagtggt gacctgagga 1250
actgcccccc tgcaaagcag ggcccaccc tcggactcag agagcccagg 1300
gcaactgcca agcaggggga caagtat 1327

<210> 171

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 171

taacagctgc ccactgcttc cagg 24

<210> 172

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 172

taatccagca gtgcaggccg gg 22

<210> 173

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 173

atggcctcca cggtgctgtg gaccgtgttc ctggcaagg tgtggcagaa 50

<210> 174

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 174

tgcctatgca ctgaggaggc agaag 25

<210> 175

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 175

aggcaggac acagagtcca ttcac 25

<210> 176

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 176

agtatgattt gccgtgcacc cagggccagt ggacgatcca gaacaggagg 50

<210> 177

<211> 1510

<212> DNA

<213> Homo sapiens

<400> 177

ggacgagggc agatctcggtt ctggggcaag ccgttgacac tcgctccctg 50

ccaccgcccc ggctccgtgc cgccaagttt tcattttcca ctttctctgc 100

ctccagtcctt ccagccccctg gcccggagaa gggctttacc ggccgggatt 150

gctggaaaaca ccaagaggtg gttttgttt tttaaaactt ctgtttcttg 200

ggaggggggtg tggcggggca ggatgagcaa ctccgttcct ctgctctgtt 250

tctggagcct ctgctattgc tttgctgcgg ggagccccgt accttttgt 300
ccagagggac ggctggaaga taagctccac aaacccaaag ctacacagac 350
tgaggtcaaa ccatctgtga ggttaacct ccgcacctcc aaggacccag 400
agcatgaagg atgctacctc tccgtcggcc acagccagcc cttagaagac 450
tgcagttca acatgacagc taaaacctt ttcatcattc acggatggac 500
gatgagcggt atcttgaaa actggctgca caaactcgtg tcagccctgc 550
acacaagaga gaaagacgcc aatgttagttg tggttgactg gctccccctg 600
gcccaccagc tttacacgga tgcggtaat aataccaggg tggtgggaca 650
cagcattgcc aggatgctcg actggctgca ggagaaggac gattttctc 700
tcgggaatgt ccacttgatc ggctacagcc tcggagcgcga cgtggccggg 750
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tcctgccggg cccatgtttg aaggggccga catccacaag aggctctc 850
cgacgatgc agattttgtg gatgtcctcc acacctacac gcgttccttc 900
gcgtttagca ttggattca gatgcctgtg ggccacattt acatctaccc 950
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aataaaaaaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa 1500
aaaaaaaaaaa 1510

<210> 178
<211> 354
<212> PRT
<213> Homo sapiens

<400> 178
Met Ser Asn Ser Val Pro Leu Leu Cys Phe Trp Ser Leu Cys Tyr
1 5 10 15

Cys Phe Ala Ala Gly Ser Pro Val Pro Phe Gly Pro Glu Gly Arg
20 25 30

Leu Glu Asp Lys Leu His Lys Pro Lys Ala Thr Gln Thr Glu Val
35 40 45

Lys Pro Ser Val Arg Phe Asn Leu Arg Thr Ser Lys Asp Pro Glu
50 55 60

His Glu Gly Cys Tyr Leu Ser Val Gly His Ser Gln Pro Leu Glu
65 70 75

Asp Cys Ser Phe Asn Met Thr Ala Lys Thr Phe Phe Ile Ile His
80 85 90

Gly Trp Thr Met Ser Gly Ile Phe Glu Asn Trp Leu His Lys Leu
95 100 105

Val Ser Ala Leu His Thr Arg Glu Lys Asp Ala Asn Val Val Val
110 115 120

Val Asp Trp Leu Pro Leu Ala His Gln Leu Tyr Thr Asp Ala Val
125 130 135

Asn Asn Thr Arg Val Val Gly His Ser Ile Ala Arg Met Leu Asp
140 145 150

Trp Leu Gln Glu Lys Asp Asp Phe Ser Leu Gly Asn Val His Leu
155 160 165

Ile Gly Tyr Ser Leu Gly Ala His Val Ala Gly Tyr Ala Gly Asn
170 175 180

Phe Val Lys Gly Thr Val Gly Arg Ile Thr Gly Leu Asp Pro Ala
185 190 195

Gly Pro Met Phe Glu Gly Ala Asp Ile His Lys Arg Leu Ser Pro
200 205 210

Asp Asp Ala Asp Phe Val Asp Val Leu His Thr Tyr Thr Arg Ser
215 220 225

Phe Gly Leu Ser Ile Gly Ile Gln Met Pro Val Gly His Ile Asp
230 235 240

Ile Tyr Pro Asn Gly Gly Asp Phe Gln Pro Gly Cys Gly Leu Asn
245 250 255

Asp Val Leu Gly Ser Ile Ala Tyr Gly Thr Ile Thr Glu Val Val
260 265 270

Lys Cys Glu His Glu Arg Ala Val His Leu Phe Val Asp Ser Leu
275 280 285

Val Asn Gln Asp Lys Pro Ser Phe Ala Phe Gln Cys Thr Asp Ser
290 295 300

Asn Arg Phe Lys Lys Gly Ile Cys Leu Ser Cys Arg Lys Asn Arg
305 310 315

Cys Asn Ser Ile Gly Tyr Asn Ala Lys Lys Met Arg Asn Lys Arg
320 325 330

Asn Ser Lys Met Tyr Leu Lys Thr Arg Ala Gly Met Pro Phe Arg
335 340 345

Gly Asn Leu Gln Ser Leu Glu Cys Pro
350

<210> 179
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 179
gtgagcatga gcgagccgtc cac 23

<210> 180
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 180
gctattacaa cggttcttgc ggcagc 26

<210> 181
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 181
ttgactctct ggtgaatcag gacaagccga gttttgcctt ccag 44

<210> 182
<211> 3240
<212> DNA
<213> Homo sapiens

<400> 182
cggacgcgtg ggcggacgcg tgggcctggg caagggccgg ggcgccggc 50

cgagccaccc tttccccctcc cccgcgttccc tgtcgcgctc cgctggctgg 100
acgcgcgtgga ggagtggagc agcacccggc cggccctggg ggctgacagt 150
cgccaaaggat tggcccgaaag aggaagtggt ctcaaaacccc ggcaggtggc 200
gaccaggcca gaccaggggc gctcgctgcc tgcgggcccggg ctgttaggcga 250
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accctacgct cccctctcca gccactgatc tccctgtgtg aggacacctcc 850
cagccctctg cagctgcccggggcaacgt caccatcaact tacagctatg 900

ctggggccag agcacccatg ggccagggt tcctgctctc ctacagccaa 950
gattggctga tgtgcctgca ggaagagttt cagtgctga accaccgctg 1000
tgtatctgt gtccagcgct gtatgggtt tgatgcctgt ggcgtggct 1050
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gttctgcccc gcaaggtcat tacagctgca gtcattggca gcctagtgtg 1900
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ttcgcaccca ggagtacacgc atctttgccc ccctctcccg gatggaggt 2000
gagatttgtc agcagcaggc acccccattcc tacgggcagc tcattgccc 2050
gggtgccatc ccacctgttag aagactttcc tacagagaat cctaatagtata 2100
actcagtgtc gggcaacactg cggtctctgc tacagatctt acgccaggat 2150
atgactccag gaggtggccc aggtgcccgc cgtcgtcagc ggggcccgtt 2200
gatgcgacgc ctggtaacgcc gtctccgccc ctggggcttgc ctccctcgaa 2250
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gctgctcccc ttgaggccct agatggtggc acaggtccag cccgtgaggg 2350
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tgggcagaac ctgaggtttt gccatccaca atccctccta cagggcctgg 3150
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tcagtaagtt gaggtcaaaa ataaaggaat catacatctc 3240

<210> 183

<211> 713

<212> PRT

<213> Homo sapiens

<400> 183

Met Leu Leu Ala Thr Leu Leu Leu Leu Leu Gly Gly Ala Leu
1 5 10 15

Ala His Pro Asp Arg Ile Ile Phe Pro Asn His Ala Cys Glu Asp
20 25 30

Pro Pro Ala Val Leu Leu Glu Val Gln Gly Thr Leu Gln Arg Pro
35 40 45

Leu Val Arg Asp Ser Arg Thr Ser Pro Ala Asn Cys Thr Trp Leu
50 55 60

Ile Leu Gly Ser Lys Glu Gln Thr Val Thr Ile Arg Phe Gln Lys
65 70 75

Leu His Leu Ala Cys Gly Ser Glu Arg Leu Thr Leu Arg Ser Pro
80 85 90

Leu Gln Pro Leu Ile Ser Leu Cys Glu Ala Pro Pro Ser Pro Leu
95 100 105

Gln Leu Pro Gly Gly Asn Val Thr Ile Thr Tyr Ser Tyr Ala Gly
110 115 120

Ala Arg Ala Pro Met Gly Gln Gly Phe Leu Leu Ser Tyr Ser Gln
125 130 135

Asp Trp Leu Met Cys Leu Gln Glu Glu Phe Gln Cys Leu Asn His
140 145 150

Arg Cys Val Ser Ala Val Gln Arg Cys Asp Gly Val Asp Ala Cys
155 160 165

Gly Asp Gly Ser Asp Glu Ala Gly Cys Ser Ser Asp Pro Phe Pro
170 175 180

Gly Leu Thr Pro Arg Pro Val Pro Ser Leu Pro Cys Asn Val Thr

185	190	195
Leu Glu Asp Phe Tyr Gly Val Phe Ser Ser Pro Gly Tyr Thr His		
200	205	210
Leu Ala Ser Val Ser His Pro Gln Ser Cys His Trp Leu Leu Asp		
215	220	225
Pro His Asp Gly Arg Arg Leu Ala Val Arg Phe Thr Ala Leu Asp		
230	235	240
Leu Gly Phe Gly Asp Ala Val His Val Tyr Asp Gly Pro Gly Pro		
245	250	255
Pro Glu Ser Ser Arg Leu Leu Arg Ser Leu Thr His Phe Ser Asn		
260	265	270
Gly Lys Ala Val Thr Val Glu Thr Leu Ser Gly Gln Ala Val Val		
275	280	285
Ser Tyr His Thr Val Ala Trp Ser Asn Gly Arg Gly Phe Asn Ala		
290	295	300
Thr Tyr His Val Arg Gly Tyr Cys Leu Pro Trp Asp Arg Pro Cys		
305	310	315
Gly Leu Gly Ser Gly Leu Gly Ala Gly Glu Gly Leu Gly Glu Arg		
320	325	330
Cys Tyr Ser Glu Ala Gln Arg Cys Asp Gly Ser Trp Asp Cys Ala		
335	340	345
Asp Gly Thr Asp Glu Glu Asp Cys Pro Gly Cys Pro Pro Gly His		
350	355	360
Phe Pro Cys Gly Ala Ala Gly Thr Ser Gly Ala Thr Ala Cys Tyr		
365	370	375
Leu Pro Ala Asp Arg Cys Asn Tyr Gln Thr Phe Cys Ala Asp Gly		
380	385	390
Ala Asp Glu Arg Arg Cys Arg His Cys Gln Pro Gly Asn Phe Arg		
395	400	405
Cys Arg Asp Glu Lys Cys Val Tyr Glu Thr Trp Val Cys Asp Gly		
410	415	420
Gln Pro Asp Cys Ala Asp Gly Ser Asp Glu Trp Asp Cys Ser Tyr		
425	430	435
Val Leu Pro Arg Lys Val Ile Thr Ala Ala Val Ile Gly Ser Leu		
440	445	450
Val Cys Gly Leu Leu Leu Val Ile Ala Leu Gly Cys Thr Cys Lys		
455	460	465
Leu Tyr Ala Ile Arg Thr Gln Glu Tyr Ser Ile Phe Ala Pro Leu		

470	475	480
Ser Arg Met Glu Ala Glu Ile Val Gln Gln Gln Ala Pro Pro Ser		
485	490	495
Tyr Gly Gln Leu Ile Ala Gln Gly Ala Ile Pro Pro Val Glu Asp		
500	505	510
Phe Pro Thr Glu Asn Pro Asn Asp Asn Ser Val Leu Gly Asn Leu		
515	520	525
Arg Ser Leu Leu Gln Ile Leu Arg Gln Asp Met Thr Pro Gly Gly		
530	535	540
Gly Pro Gly Ala Arg Arg Arg Gln Arg Gly Arg Leu Met Arg Arg		
545	550	555
Leu Val Arg Arg Leu Arg Arg Trp Gly Leu Leu Pro Arg Thr Asn		
560	565	570
Thr Pro Ala Arg Ala Ser Glu Ala Arg Ser Gln Val Thr Pro Ser		
575	580	585
Ala Ala Pro Leu Glu Ala Leu Asp Gly Gly Thr Gly Pro Ala Arg		
590	595	600
Glu Gly Gly Ala Val Gly Gly Gln Asp Gly Glu Gln Ala Pro Pro		
605	610	615
Leu Pro Ile Lys Ala Pro Leu Pro Ser Ala Ser Thr Ser Pro Ala		
620	625	630
Pro Thr Thr Val Pro Glu Ala Pro Gly Pro Leu Pro Ser Leu Pro		
635	640	645
Leu Glu Pro Ser Leu Leu Ser Gly Val Val Gln Ala Leu Arg Gly		
650	655	660
Arg Leu Leu Pro Ser Leu Gly Pro Pro Gly Pro Thr Arg Ser Pro		
665	670	675
Pro Gly Pro His Thr Ala Val Leu Ala Leu Glu Asp Glu Asp Asp		
680	685	690
Val Leu Leu Val Pro Leu Ala Glu Pro Gly Val Trp Val Ala Glu		
695	700	705
Ala Glu Asp Glu Pro Leu Leu Thr		
710		

<210> 184

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 184
ggctgtcact gtggagacac 20

<210> 185
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 185
gcaaggcat tacagctg 18

<210> 186
<211> 23
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 186
agaacatagg agcagtccca ctc 23

<210> 187
<211> 23
<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 187
tgcctgtc tgcacaatct cag 23

<210> 188
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 188
ggctattgct tgccttggga cagaccctgt ggcttaggct ctggc 45

<210> 189
<211> 663
<212> DNA
<213> Homo sapiens

<400> 189
cgagctgggc gagaagtagg ggagggcggt gctccgccc ggtggcggtt 50
gctatcgctt cgcagaacct actcaggcag ccagctgaga agagttgagg 100

gaaagtgcgt ctgcggcgc tgcagacgcg atggataacg tgcagccgaa 150
aataaaaacat cgccccttct gcttcagtgt gaaaggccac gtgaagatgc 200
tgccggctggc actaactgtg acatctatga cctttttat catcgaccaa 250
gccccctgaac catatattgt tatcaactgga tttgaagtca ccgttatctt 300
atttttcata cttttatatg tactcagact tgatcgatta atgaagtgg 350
tattttggcc tttgcttgat attatcaact cactggtaac aacagtattc 400
atgctcatcg tatctgtgtt ggcactgata ccagaaacca caacattgac 450
agttggtgga ggggtgttg cacttgtgac agcagtatgc tgtcttgcgg 500
acggggccct tatttaccgg aagcttctgt tcaatcccag cggtccttac 550
cagaaaaaagc ctgtgcataa aaaaaaaagaa gttttgtaat tttatattac 600
tttttagttt gatactaagt attaaacata tttctgtatt cttccaaaaaa 650
aaaaaaaaaa aaa 663

<210> 190

<211> 152

<212> PRT

<213> Homo sapiens

<400> 190

Met	Asp	Asn	Val	Gln	Pro	Lys	Ile	Lys	His	Arg	Pro	Phe	Cys	Phe
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Ser	Val	Lys	Gly	His	Val	Lys	Met	Leu	Arg	Leu	Ala	Leu	Thr	Val
					20				25				30	

Thr	Ser	Met	Thr	Phe	Phe	Ile	Ile	Ala	Gln	Ala	Pro	Glu	Pro	Tyr
						35			40				45	

Ile	Val	Ile	Thr	Gly	Phe	Glu	Val	Thr	Val	Ile	Leu	Phe	Phe	Ile
					50				55			60		

Leu	Leu	Tyr	Val	Leu	Arg	Leu	Asp	Arg	Leu	Met	Lys	Trp	Leu	Phe
					65				70			75		

Trp	Pro	Leu	Leu	Asp	Ile	Ile	Asn	Ser	Leu	Val	Thr	Thr	Val	Phe
					80				85			90		

Met	Leu	Ile	Val	Ser	Val	Leu	Ala	Leu	Ile	Pro	Glu	Thr	Thr	Thr
						95			100			105		

Leu	Thr	Val	Gly	Gly	Val	Phe	Ala	Leu	Val	Thr	Ala	Val	Cys	
					110				115			120		

Cys	Leu	Ala	Asp	Gly	Ala	Leu	Ile	Tyr	Arg	Lys	Leu	Leu	Phe	Asn
						125			130			135		

Pro Ser Gly Pro Tyr Gln Lys Lys Pro Val His Glu Lys Lys Glu
140 145 150

Val Leu

<210> 191
<211> 495
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 78, 212, 234, 487
<223> unknown base

<400> 191
ggcgagaag taggggaggg cgtgttccgc cgccgtggcg gttgctatcg 50
ttttgcagaa cctactcagg cagccagntg agaagagttg agggaaagtg 100
ctgctgctgg gtctgcagac gcgtatggata acgtgcagcc gaaaataaaaa 150
catcgccccct tctgcttcag tgtgaaaggc cacgtgaaga tgctgcggct 200
ggcactaact gngacatcta tgacccttt tatnatcgca caagccccctg 250
aaccatatat tgttatcact ggatttgaag tcaccgttat cttattttc 300
atactttat atgtactcag acttgatcga ttaatgaagt ggttatttg 350
gcctttgctt gatattatca actcactggt aacaacagta ttcatgctca 400
tcgtatctgt gttggcactg ataccagaaa ccacaacatt gacagttgg 450
ggaggggtgt ttgcacttgt gacagcagta tgctgtnttg ccgac 495

<210> 192
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 192
cgaaaaatcc aacctactca ggcag 25

<210> 193
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 193
cctccaccaa ctgtcaatgt tgtgg 25

<210> 194
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 194
aaaagtgcgc tgctgggtct gcagacgcga tggataaacgt 40

<210> 195
<211> 1879
<212> DNA
<213> Homo sapien

<400> 195
cagccccgcg cgccggccga gtcgctgagc cgccggctgcc ggacgggacg 50
ggaccggcta ggctgggcgc gcccccccgga ccccgccgtg ggcattggcg 100
caactggcccg ggcgctgctg ctgcctctgc tggcccagtg gtcctgcgc 150
gcccggcccg agctggccccc cgccgccttc acgctgcccc tccgggtggc 200
cgccggccacg aaccgcgtag ttgcgcccac cccgggaccc gggacccctg 250
ccgagcgcaca cgccgacggc ttggcgctcg ccctggagcc tgccctggcg 300
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aaataattaa aaaaaaaaaact tcattctaa 1879

<210> 196
<211> 518
<212> PRT.
<213> *Homo sapien*

<400> 196

Met Gly Ala Leu Ala Arg Ala Leu Leu Leu Pro Leu Leu Ala Gln
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Trp Leu Leu Arg Ala Ala Pro Glu Leu Ala Pro Ala Pro Phe Thr
20 25 30

Leu Pro Leu Arg Val Ala Ala Ala Thr Asn Arg Val Val Ala Pro
35 40 45

Thr Pro Gly Pro Gly Thr Pro Ala Glu Arg His Ala Asp Gly Leu
50 55 60

Ala Leu Ala Leu Glu Pro Ala Leu Ala Ser Pro Ala Gly Ala Ala
65 70 75

Asn Phe Leu Ala Met Val Asp Asn Leu Gln Gly Asp Ser Gly Arg
80 85 90

Gly Tyr Tyr Leu Glu Met Leu Ile Gly Thr Pro Pro Gln Lys Leu
95 100 105

Gln Ile Leu Val Asp Thr Gly Ser Ser Asn Phe Ala Val Ala Gly
110 115 120

Thr Pro His Ser Tyr Ile Asp Thr Tyr Phe Asp Thr Glu Arg Ser
125 130 135

Ser Thr Tyr Arg Ser Lys Gly Phe Asp Val Thr Val Lys Tyr Thr
140 145 150

Gln Gly Ser Trp Thr Gly Phe Val Gly Glu Asp Leu Val Thr Ile
155 160 165

Pro Lys Gly Phe Asn Thr Ser Phe Leu Val Asn Ile Ala Thr Ile
170 175 180

Phe Glu Ser Glu Asn Phe Phe Leu Pro Gly Ile Lys Trp Asn Gly
185 190 195

Ile Leu Gly Leu Ala Tyr Ala Thr Leu Ala Lys Pro Ser Ser Ser
200 205 210

Leu Glu Thr Phe Phe Asp Ser Leu Val Thr Gln Ala Asn Ile Pro
215 220 225

Asn Val Phe Ser Met Gln Met Cys Gly Ala Gly Leu Pro Val Ala
230 235 240

Gly Ser Gly Thr Asn Gly Gly Ser Leu Val Leu Gly Gly Ile Glu
245 250 255

Pro Ser Leu Tyr Lys Gly Asp Ile Trp Tyr Thr Pro Ile Lys Glu
260 265 270

Glu Trp Tyr Tyr Gln Ile Glu Ile Leu Lys Leu Glu Ile Gly Gly
275 280 285

Gln Ser Leu Asn Leu Asp Cys Arg Glu Tyr Asn Ala Asp Lys Ala
290 295 300

Ile Val Asp Ser Gly Thr Thr Leu Leu Arg Leu Pro Gln Lys Val
305 310 315

Phe Asp Ala Val Val Glu Ala Val Ala Arg Ala Ser Leu Ile Pro
320 325 330

Glu Phe Ser Asp Gly Phe Trp Thr Gly Ser Gln Leu Ala Cys Trp
335 340 345

Thr Asn Ser Glu Thr Pro Trp Ser Tyr Phe Pro Lys Ile Ser Ile
350 355 360

Tyr Leu Arg Asp Glu Asn Ser Ser Arg Ser Phe Arg Ile Thr Ile
365 370 375

Leu Pro Gln Leu Tyr Ile Gln Pro Met Met Gly Ala Gly Leu Asn
380 385 390

Tyr Glu Cys Tyr Arg Phe Gly Ile Ser Pro Ser Thr Asn Ala Leu
395 400 405

Val Ile Gly Ala Thr Val Met Glu Gly Phe Tyr Val Ile Phe Asp
410 415 420

Arg Ala Gln Lys Arg Val Gly Phe Ala Ala Ser Pro Cys Ala Glu
425 430 435

Ile Ala Gly Ala Ala Val Ser Glu Ile Ser Gly Pro Phe Ser Thr
440 445 450

Glu Asp Val Ala Ser Asn Cys Val Pro Ala Gln Ser Leu Ser Glu
455 460 465

Pro Ile Leu Trp Ile Val Ser Tyr Ala Leu Met Ser Val Cys Gly
470 475 480

Ala Ile Leu Leu Val Leu Ile Val Leu Leu Leu Pro Phe Arg
485 490 495

Cys Gln Arg Arg Pro Arg Asp Pro Glu Val Val Asn Asp Glu Ser
500 505 510

Ser Leu Val Arg His Arg Trp Lys
515

<210> 197

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 197

cgcagaagct acagattctc g 21

<210> 198

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 198

gaaaatttggaa ggccaaaggc 19

<210> 199
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 199
ggatgttagcc agcaactgtg 20

<210> 200
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 200
gccttggctc gttctcttc 19

<210> 201
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 201
ggtcctgtgc ctggatgg 18

<210> 202
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 202
gacaagacta cctccgttgg tc 22

<210> 203
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 203
tgatgcacag ttcagcacct gttg 24

<210> 204

<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 204
cgctccaagg gcttgacgt cacagtgaag tacacacaag gaagctg 47

<210> 205
<211> 1939
<212> DNA
<213> Homo sapiens

<400> 205
cgcctccgcc ttcggaggct gacgcgccc ggcgccgttc caggcctgtg 50
cagggcggat cggcagccgc ctggcggcga tccagggcgg tgccccct 100
gggcgggagc cgggaggcgc ggccggcatg gaggcgctgc tgctggcgc 150
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taaagcqcggt tgaccgccaa aaaaaaaaaaaaaaaa 1939

<210> 206
<211> 377
<212> PRT
<213> *Homo sapiens*

<400> 206

Met Glu Ala Leu Leu Leu Gly Ala Gly Leu Leu Leu Gly Ala Tyr
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Val Leu Val Tyr Tyr Asn Leu Val Lys Ala Pro Pro Cys Gly Gly
20 25 30

Met Gly Asn Leu Arg Gly Arg Thr Ala Val Val Thr Gly Ala Asn
35 40 45

Ser Gly Ile Gly Lys Met Thr Ala Leu Glu Leu Ala Arg Arg Gly
50 55 60

Ala Arg Val Val Leu Ala Cys Arg Ser Gln Glu Arg Gly Glu Ala
65 70 75

Ala	Ala	Phe	Asp	Leu	Arg	Gln	Glu	Ser	Gly	Asn	Asn	Glu	Val	Ile
				80				85				90		
Phe	Met	Ala	Leu	Asp	Leu	Ala	Ser	Leu	Ala	Ser	Val	Arg	Ala	Phe
				95				100				105		
Ala	Thr	Ala	Phe	Leu	Ser	Ser	Glu	Pro	Arg	Leu	Asp	Ile	Leu	Ile
				110				115				120		
His	Asn	Ala	Gly	Ile	Ser	Ser	Cys	Gly	Arg	Thr	Arg	Glu	Ala	Phe
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Asn	Leu	Leu	Leu	Arg	Val	Asn	His	Ile	Gly	Pro	Phe	Leu	Leu	Thr
				140				145				150		
His	Leu	Leu	Leu	Pro	Cys	Leu	Lys	Ala	Cys	Ala	Pro	Ser	Arg	Val
				155				160				165		
Val	Val	Val	Ala	Ser	Ala	Ala	His	Cys	Arg	Gly	Arg	Leu	Asp	Phe
				170				175				180		
Lys	Arg	Leu	Asp	Arg	Pro	Val	Val	Gly	Trp	Arg	Gln	Glu	Leu	Arg
				185				190				195		
Ala	Tyr	Ala	Asp	Thr	Lys	Leu	Ala	Asn	Val	Leu	Phe	Ala	Arg	Glu
				200				205				210		
Leu	Ala	Asn	Gln	Leu	Glu	Ala	Thr	Gly	Val	Thr	Cys	Tyr	Ala	Ala
				215				220				225		
His	Pro	Gly	Pro	Val	Asn	Ser	Glu	Leu	Phe	Leu	Arg	His	Val	Pro
				230				235				240		
Gly	Trp	Leu	Arg	Pro	Leu	Leu	Arg	Pro	Leu	Ala	Trp	Leu	Val	Leu
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Arg	Ala	Pro	Arg	Gly	Gly	Ala	Gln	Thr	Pro	Leu	Tyr	Cys	Ala	Leu
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Gln	Glu	Gly	Ile	Glu	Pro	Leu	Ser	Gly	Arg	Tyr	Phe	Ala	Asn	Cys
				275				280				285		
His	Val	Glu	Glu	Val	Pro	Pro	Ala	Ala	Arg	Asp	Asp	Arg	Ala	Ala
				290				295				300		
His	Arg	Leu	Trp	Glu	Ala	Ser	Lys	Arg	Leu	Ala	Gly	Leu	Gly	Pro
				305				310				315		
Gly	Glu	Asp	Ala	Glu	Pro	Asp	Glu	Asp	Pro	Gln	Ser	Glu	Asp	Ser
				320				325				330		
Glu	Ala	Pro	Ser	Ser	Leu	Ser	Thr	Pro	His	Pro	Glu	Glu	Pro	Thr
				335				340				345		
Val	Ser	Gln	Pro	Tyr	Pro	Ser	Pro	Gln	Ser	Ser	Pro	Asp	Leu	Ser
				350				355				360		

Lys Met Thr His Arg Ile Gln Ala Lys Val Glu Pro Glu Ile Gln
365 370 375

Leu Ser

<210> 207

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 207

tttcatggcc ttggacttgg ccag 24

<210> 208

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 208

acgccaggc cctcaagctg gttg 24

<210> 209

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 209

ttttctgagc tctgagccac gggtggacat cctcatccac aatgc 45

<210> 210

<211> 3716

<212> DNA

<213> Homo sapiens

<400> 210

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accccccagga ccagctgttc cagggccctg gccctgccag gatgagctgc 150

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gccccctgagc atggtgcccc cagacccaca ccacccctcg cctgatggaa 250

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aaaaaaaaaa aaaaaa 3716

<210> 211
<211> 985
<212> PRT
<213> Homo sapiens

<400> 211

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Pro	Gln	Asp	Gln	Leu	Phe	Gln	Gly	Pro	Gly	Pro	Ala	Arg	Met	Ser
				20				25					30	

Cys	Gln	Ala	Ser	Gly	Gln	Pro	Pro	Pro	Thr	Ile	Arg	Trp	Leu	Leu
				35					40				45	

Asn	Gly	Gln	Pro	Leu	Ser	Met	Val	Pro	Pro	Asp	Pro	His	His	Leu
				50				55					60	

Leu	Pro	Asp	Gly	Thr	Leu	Leu	Leu	Gln	Pro	Pro	Ala	Arg	Gly	
				65				70					75	

His	Ala	His	Asp	Gly	Gln	Ala	Leu	Ser	Thr	Asp	Leu	Gly	Val	Tyr
				80					85				90	

Thr	Cys	Glu	Ala	Ser	Asn	Arg	Leu	Gly	Thr	Ala	Val	Ser	Arg	Gly
					95				100				105	

Ala	Arg	Leu	Ser	Val	Ala	Val	Leu	Arg	Glu	Asp	Phe	Gln	Ile	Gln
				110				115					120	

Pro	Arg	Asp	Met	Val	Ala	Val	Val	Gly	Glu	Gln	Phe	Thr	Leu	Glu
				125				130					135	

Cys	Gly	Pro	Pro	Trp	Gly	His	Pro	Glu	Pro	Thr	Val	Ser	Trp	Trp
				140				145						150
Lys	Asp	Gly	Lys	Pro	Leu	Ala	Leu	Gln	Pro	Gly	Arg	His	Thr	Val
				155				160						165
Ser	Gly	Gly	Ser	Leu	Leu	Met	Ala	Arg	Ala	Glu	Lys	Ser	Asp	Glu
				170				175						180
Gly	Thr	Tyr	Met	Cys	Val	Ala	Thr	Asn	Ser	Ala	Gly	His	Arg	Glu
				185				190						195
Ser	Arg	Ala	Ala	Arg	Val	Ser	Ile	Gln	Glu	Pro	Gln	Asp	Tyr	Thr
				200				205						210
Glu	Pro	Val	Glu	Leu	Leu	Ala	Val	Arg	Ile	Gln	Leu	Glu	Asn	Val
				215				220						225
Thr	Leu	Leu	Asn	Pro	Asp	Pro	Ala	Glu	Gly	Pro	Lys	Pro	Arg	Pro
				230				235						240
Ala	Val	Trp	Leu	Ser	Trp	Lys	Val	Ser	Gly	Pro	Ala	Ala	Pro	Ala
				245				250						255
Gln	Ser	Tyr	Thr	Ala	Leu	Phe	Arg	Thr	Gln	Thr	Ala	Pro	Gly	Gly
				260				265						270
Gln	Gly	Ala	Pro	Trp	Ala	Glu	Glu	Leu	Leu	Ala	Gly	Trp	Gln	Ser
				275				280						285
Ala	Glu	Leu	Gly	Gly	Leu	His	Trp	Gly	Gln	Asp	Tyr	Glu	Phe	Lys
				290				295						300
Val	Arg	Pro	Ser	Ser	Gly	Arg	Ala	Arg	Gly	Pro	Asp	Ser	Asn	Val
				305				310						315
Leu	Leu	Leu	Arg	Leu	Pro	Glu	Lys	Val	Pro	Ser	Ala	Pro	Pro	Gln
				320				325						330
Glu	Val	Thr	Leu	Lys	Pro	Gly	Asn	Gly	Thr	Val	Phe	Val	Ser	Trp
				335				340						345
Val	Pro	Pro	Pro	Ala	Glu	Asn	His	Asn	Gly	Ile	Ile	Arg	Gly	Tyr
				350				355						360
Gln	Val	Trp	Ser	Leu	Gly	Asn	Thr	Ser	Leu	Pro	Pro	Ala	Asn	Trp
				365				370						375
Thr	Val	Val	Gly	Glu	Gln	Thr	Gln	Leu	Glu	Ile	Ala	Thr	His	Met
				380				385						390
Pro	Gly	Ser	Tyr	Cys	Val	Gln	Val	Ala	Ala	Val	Thr	Gly	Ala	Gly
				395				400						405
Ala	Gly	Glu	Pro	Ser	Arg	Pro	Val	Cys	Leu	Leu	Leu	Glu	Gln	Ala
				410				415						420

Met Glu Arg Ala Thr Gln Glu Pro Ser Glu His Gly Pro Trp Thr
425 430 435

Leu Glu Gln Leu Arg Ala Thr Leu Lys Arg Pro Glu Val Ile Ala
440 445 450

Thr Cys Gly Val Ala Leu Trp Leu Leu Leu Gly Thr Ala Val
455 460 465

Cys Ile His Arg Arg Arg Ala Arg Val His Leu Gly Pro Gly
470 475 480

Leu Tyr Arg Tyr Thr Ser Glu Asp Ala Ile Leu Lys His Arg Met
485 490 495

Asp His Ser Asp Ser Gln Trp Leu Ala Asp Thr Trp Arg Ser Thr
500 505 510

Ser Gly Ser Arg Asp Leu Ser Ser Ser Ser Leu Ser Ser Arg
515 520 525

Leu Gly Ala Asp Ala Arg Asp Pro Leu Asp Cys Arg Arg Ser Leu
530 535 540

Leu Ser Trp Asp Ser Arg Ser Pro Gly Val Pro Leu Leu Pro Asp
545 550 555

Thr Ser Thr Phe Tyr Gly Ser Leu Ile Ala Glu Leu Pro Ser Ser
560 565 570

Thr Pro Ala Arg Pro Ser Pro Gln Val Pro Ala Val Arg Arg Leu
575 580 585

Pro Pro Gln Leu Ala Gln Leu Ser Ser Pro Cys Ser Ser Ser Asp
590 595 600

Ser Leu Cys Ser Arg Arg Gly Leu Ser Ser Pro Arg Leu Ser Leu
605 610 615

Ala Pro Ala Glu Ala Trp Lys Ala Lys Lys Lys Gln Glu Leu Gln
620 625 630

His Ala Asn Ser Ser Pro Leu Leu Arg Gly Ser His Ser Leu Glu
635 640 645

Leu Arg Ala Cys Glu Leu Gly Asn Arg Gly Ser Lys Asn Leu Ser
650 655 660

Gln Ser Pro Gly Ala Val Pro Gln Ala Leu Val Ala Trp Arg Ala
665 670 675

Leu Gly Pro Lys Leu Leu Ser Ser Asn Glu Leu Val Thr Arg
680 685 690

His Leu Pro Pro Ala Pro Leu Phe Pro His Glu Thr Pro Pro Thr
695 700 705

Gln Ser Gln Gln Thr Gln Pro Pro Val Ala Pro Gln Ala Pro Ser
710 715 720

Ser Ile Leu Leu Pro Ala Ala Pro Ile Pro Ile Leu Ser Pro Cys
725 730 735

Ser Pro Pro Ser Pro Gln Ala Ser Ser Leu Ser Gly Pro Ser Pro
740 745 750

Ala Ser Ser Arg Leu Ser Ser Ser Leu Ser Ser Leu Gly Glu
755 760 765

Asp Gln Asp Ser Val Leu Thr Pro Glu Glu Val Ala Leu Cys Leu
770 775 780

Glu Leu Ser Glu Gly Glu Glu Thr Pro Arg Asn Ser Val Ser Pro
785 790 795

Met Pro Arg Ala Pro Ser Pro Pro Thr Thr Tyr Gly Tyr Ile Ser
800 805 810

Val Pro Thr Ala Ser Glu Phe Thr Asp Met Gly Arg Thr Gly Gly
815 820 825

Gly Val Gly Pro Lys Gly Gly Val Leu Leu Cys Pro Pro Arg Pro
830 835 840

Cys Leu Thr Pro Thr Pro Ser Glu Gly Ser Leu Ala Asn Gly Trp
845 850 855

Gly Ser Ala Ser Glu Asp Asn Ala Ala Ser Ala Arg Ala Ser Leu
860 865 870

Val Ser Ser Ser Asp Gly Ser Phe Leu Ala Asp Ala His Phe Ala
875 880 885

Arg Ala Leu Ala Val Ala Val Asp Ser Phe Gly Phe Gly Leu Glu
890 895 900

Pro Arg Glu Ala Asp Cys Val Phe Ile Asp Ala Ser Ser Pro Pro
905 910 915

Ser Pro Arg Asp Glu Ile Phe Leu Thr Pro Asn Leu Ser Leu Pro
920 925 930

Leu Trp Glu Trp Arg Pro Asp Trp Leu Glu Asp Met Glu Val Ser
935 940 945

His Thr Gln Arg Leu Gly Arg Gly Met Pro Pro Trp Pro Pro Asp
950 955 960

Ser Gln Ile Ser Ser Gln Arg Ser Gln Leu His Cys Arg Met Pro
965 970 975

Lys Ala Gly Ala Ser Pro Val Asp Tyr Ser
980 985

<210> 212
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 212
gaagggacct acatgtgtgt ggcc 24

<210> 213
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 213
actgacacctc cagctgagcc acac 24

<210> 214
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 214
aggactacac ggagcctgtg gagcttctgg ctgtgcgaat tcagctggaa 50

<210> 215
<211> 2749
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 1869, 1887
<223> unknown base

<400> 215
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gcgggttcga aggggacact gtgtccctgc agtgcaccta cagggaaagag 150
ctgagggacc accggaagta ctgggtgcagg aagggtggga tcctttctc 200
tcgctgctct ggcaccatct atgcagaaga agaaggccag gagacaatga 250
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gacctttta taaataaaaat gttcatcagc tgcataaaaaa aaaaaaaaaa 2749

<210> 216
<211> 332
<212> PRT
<213> Homo sapiens

<400> 216
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Tyr Glu Ala Leu Glu Gly Pro Glu Glu Ile Ser Gly Phe Glu Gly
20 25 30
Asp Thr Val Ser Leu Gln Cys Thr Tyr Arg Glu Glu Leu Arg Asp
35 40 45
His Arg Lys Tyr Trp Cys Arg Lys Gly Gly Ile Leu Phe Ser Arg

50	55	60
Cys Ser Gly Thr Ile Tyr Ala Glu Glu Glu Gly Gln Glu Thr Met		
65	70	75
Lys Gly Arg Val Ser Ile Arg Asp Ser Arg Gln Glu Leu Ser Leu		
80	85	90
Ile Val Thr Leu Trp Asn Leu Thr Leu Gln Asp Ala Gly Glu Tyr		
95	100	105
Trp Cys Gly Val Glu Lys Arg Gly Pro Asp Glu Ser Leu Leu Ile		
110	115	120
Ser Leu Phe Val Phe Pro Gly Pro Cys Cys Pro Pro Ser Pro Ser		
125	130	135
Pro Thr Phe Gln Pro Leu Ala Thr Thr Arg Leu Gln Pro Lys Ala		
140	145	150
Lys Ala Gln Gln Thr Gln Pro Pro Gly Leu Thr Ser Pro Gly Leu		
155	160	165
Tyr Pro Ala Ala Thr Thr Ala Lys Gln Gly Lys Thr Gly Ala Glu		
170	175	180
Ala Pro Pro Leu Pro Gly Thr Ser Gln Tyr Gly His Glu Arg Thr		
185	190	195
Ser Gln Tyr Thr Gly Thr Ser Pro His Pro Ala Thr Ser Pro Pro		
200	205	210
Ala Gly Ser Ser Arg Pro Pro Met Gln Leu Asp Ser Thr Ser Ala		
215	220	225
Glu Asp Thr Ser Pro Ala Leu Ser Ser Gly Ser Ser Lys Pro Arg		
230	235	240
Val Ser Ile Pro Met Val Arg Ile Leu Ala Pro Val Leu Val Leu		
245	250	255
Leu Ser Leu Leu Ser Ala Ala Gly Leu Ile Ala Phe Cys Ser His		
260	265	270
Leu Leu Leu Trp Arg Lys Glu Ala Gln Gln Ala Thr Glu Thr Gln		
275	280	285
Arg Asn Glu Lys Phe Trp Leu Ser Arg Leu Thr Ala Glu Glu Lys		
290	295	300
Glu Ala Pro Ser Gln Ala Pro Glu Gly Asp Val Ile Ser Met Pro		
305	310	315
Pro Leu His Thr Ser Glu Glu Leu Gly Phe Ser Lys Phe Val		
320	325	330
Ser Ala		

<210> 217
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 217
ccctgcagtg cacctacagg gaag 24

<210> 218
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 218
ctgtcttccc ctgcttggct gtgg 24

<210> 219
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 219
ggtgtggatac ctcttctctc gctgctctgg ccacatc 47

<210> 220
<211> 950
<212> DNA
<213> Homo sapiens

<400> 220
tttgtactaa aagctggcct agcaggccag ggagtgcagc tgcaggcg 50
gggtggcag gagccgcaga gccagagcag acagccgaga aacaggtgga 100
cagtgtaaa gaaccagtgg ttcgcgtctg ttgcccgaggc tagagtgtac 150
tggcgtgatc atagctcaact gcagcctcag actcctggac ttgagaaatc 200
ctcctgcctt agcctcctgc atatctggta ctccagggtt gcactcaagc 250
cctgtttctt ctccttctgt gagtggacca cggaggctgg tgagctgcct 300
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cctaggcttg ggaagacaag ccagcgaata aaggatggtt gaacgtgaaa 950

<210> 221

<211> 146

<212> PRT

<213> Homo sapiens

<400> 221

Met	Leu	Leu	Ala	Leu	Val	Cys	Leu	Leu	Ser	Cys	Leu	Leu	Pro	Ser
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Ser	Glu	Ala	Lys	Leu	Tyr	Gly	Arg	Cys	Glu	Leu	Ala	Arg	Val	Leu
					20				25				30	

His	Asp	Phe	Gly	Leu	Asp	Gly	Tyr	Arg	Gly	Tyr	Ser	Leu	Ala	Asp
							35		40				45	

Trp	Val	Cys	Leu	Ala	Tyr	Phe	Thr	Ser	Gly	Phe	Asn	Ala	Ala	Ala
							50		55				60	

Leu	Asp	Tyr	Glu	Ala	Asp	Gly	Ser	Thr	Asn	Asn	Gly	Ile	Phe	Gln
							65		70				75	

Ile	Asn	Ser	Arg	Arg	Trp	Cys	Ser	Asn	Leu	Thr	Pro	Asn	Val	Pro
								80		85			90	

Asn	Val	Cys	Arg	Met	Tyr	Cys	Ser	Asp	Leu	Leu	Asn	Pro	Asn	Leu
				95					100				105	

Lys	Asp	Thr	Val	Ile	Cys	Ala	Met	Lys	Ile	Thr	Gln	Glu	Pro	Gln
								110		115			120	

Gly	Leu	Gly	Tyr	Trp	Glu	Ala	Trp	Arg	His	His	Cys	Gln	Gly	Lys
								125		130			135	

Asp	Leu	Thr	Glu	Trp	Val	Asp	Gly	Cys	Asp	Phe				
								140		145				

<210> 222
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 222
gggatcatgt tggggccct ggtc 24

<210> 223
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 223
gcaaggcaga cccagtcagc cag 23

<210> 224
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 224
ctgcctgcta ccctccaagt gaggccaagc tctacggtcg ttgtg 45

<210> 225
<211> 2049
<212> DNA
<213> Homo sapiens

<400> 225
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tgccctgcgt tcgctgcgcc tcctcgtt cggcgcttc tcagccggcg 100
cgagcaactg gctgtacctg gccaagctgt cgtcggtggg gagcatctca 150
gaggaggaga cgtgcgagaa actcaaggc ctgatccaga ggcaggtgca 200
gatgtgcaag cggAACCTGG aagtcatgga ctcggtgcgc cgcgggtccc 250
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gacaggacag tgcatagggt cagcccacag ggcttccagt ggtcaggatg 500
ctctgacaac atcgccctacg gtgtggcctt ctcacagtcg tttgtggatg 550
tgccccagag aagcaagggg gcctcgcca gcagagccct catgaacctc 600
cacaacaatg aggccggcag gaaggccatc ctgacacacaca tgccggtgga 650
atgcaagtgc cacgggtgt caggctcctg tgaggtaaag acgtgctggc 700
gagccgtgcc gcccttccgc caggtgggtc acgcactgaa ggagaagttt 750
gatggtgcca ctgaggtgga gccacgcccgc gtgggctcct ccagggcact 800
ggtaccacgc aacgcacagt tcaagccca cacagatgag gacctggtgt 850
acttggagcc tagccccgac ttctgtgagc aggacatgcg cagcggcgtg 900
ctgggcacga gggccgcac atgcaacaag acgtccaagg ccatcgacgg 950
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cggcagtgcc agcggctcgt ggagttgcac acgtgccat gaccgcctgc 1100
ctagccctgc gccggcaacc acctagtggc ccagggagg ccgataattt 1150
aaacagtctc ccaccaccta ccccaagaga tactggtgtt attttttgtt 1200
ctggtttgtt tttgggtcc tcatgttatt tattggcaa accaggcagg 1250

caaccccaag ggcaccaacc agggcctccc caaagcctgg gcctttgtgg 1300
ctgccactga ccaaaggac cttgctcgta ccgcgtggctg cccgcattgtg 1350
gctgccactg accactcagt ttttatctgt gtccgtttt ctacttgtag 1400
acctaaggta gagtaacaag gagtattacc accacatggc tactgaccgt 1450
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agacccaccc aggcaggcat ataggctgcc atcctggacc agggatcccc 1850

gctgtgcott tgcagtcatg cccgagtcac cttcacagc gctgttcctc 1900
catgaaactg aaaaacacac acacacacac acacacacac acacacacac 1950
acacacacac ggacacacac acacacctgc gagagagagg gaggaaaggg 2000
ctgtgcctt gcagtcatgc ccgagtcacc tttcacagca ctgttcctc 2049

<210> 226

<211> 351

<212> PRT

<213> Homo sapiens

<400> 226

Met Ser Pro Arg Ser Cys Leu Arg Ser Leu Arg Leu Leu Val Phe
1 5 10 15

Ala Val Phe Ser Ala Ala Ala Ser Asn Trp Leu Tyr Leu Ala Lys
20 25 30

Leu Ser Ser Val Gly Ser Ile Ser Glu Glu Glu Thr Cys Glu Lys
35 40 45

Leu Lys Gly Leu Ile Gln Arg Gln Val Gln Met Cys Lys Arg Asn
50 55 60

Leu Glu Val Met Asp Ser Val Arg Arg Gly Ala Gln Leu Ala Ile
65 70 75

Glu Glu Cys Gln Tyr Gln Phe Arg Asn Arg Arg Trp Asn Cys Ser
80 85 90

Thr Leu Asp Ser Leu Pro Val Phe Gly Lys Val Val Thr Gln Gly
95 100 105

Thr Arg Glu Ala Ala Phe Val Tyr Ala Ile Ser Ser Ala Gly Val
110 115 120

Ala Phe Ala Val Thr Arg Ala Cys Ser Ser Gly Glu Leu Glu Lys
125 130 135

Cys Gly Cys Asp Arg Thr Val His Gly Val Ser Pro Gln Gly Phe
140 145 150

Gln Trp Ser Gly Cys Ser Asp Asn Ile Ala Tyr Gly Val Ala Phe
155 160 165

Ser Gln Ser Phe Val Asp Val Arg Glu Arg Ser Lys Gly Ala Ser
170 175 180

Ser Ser Arg Ala Leu Met Asn Leu His Asn Asn Glu Ala Gly Arg
185 190 195

Lys Ala Ile Leu Thr His Met Arg Val Glu Cys Lys Cys His Gly
200 205 210

Val Ser Gly Ser Cys Glu Val Lys Thr Cys Trp Arg Ala Val Pro

	215	220	225
Pro Phe Arg Gln Val Gly His Ala Leu Lys Glu Lys Phe Asp Gly			
230	235	240	
Ala Thr Glu Val Glu Pro Arg Arg Val Gly Ser Ser Arg Ala Leu			
245	250	255	
Val Pro Arg Asn Ala Gln Phe Lys Pro His Thr Asp Glu Asp Leu			
260	265	270	
Val Tyr Leu Glu Pro Ser Pro Asp Phe Cys Glu Gln Asp Met Arg			
275	280	285	
Ser Gly Val Leu Gly Thr Arg Gly Arg Thr Cys Asn Lys Thr Ser			
290	295	300	
Lys Ala Ile Asp Gly Cys Glu Leu Leu Cys Cys Gly Arg Gly Phe			
305	310	315	
His Thr Ala Gln Val Glu Leu Ala Glu Arg Cys Ser Cys Lys Phe			
320	325	330	
His Trp Cys Cys Phe Val Lys Cys Arg Gln Cys Gln Arg Leu Val			
335	340	345	
Glu Leu His Thr Cys Arg			
350			

<210> 227
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 227
gctgcagctg caaattccac tgg 23

<210> 228
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 228
tggtgggaga ctgttaaat tatcggcc 28

<210> 229
<211> 41
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 229
tgcttcgtca agtgcggca gtgccagcg ctctggagt t 41

<210> 230
<211> 1355
<212> DNA
<213> Homo sapiens

<400> 230
cggacgcgtg ggcggacgac tggcgccgacg cgtggcgga cgctgggct 50
gggtgcctgc atcgccatgg acaccaccag gtacagcaag tggggcgca 100
gctccgagga ggtccccgga gggccctggg gacgctgggt gcactggagc 150
aggagacccc tcttcttggc cctggctgtc ctggcacca cagtcctttg 200
ggctgtgatt ctgagtatcc tattgtccaa ggccctccacg gagcgcgcgg 250
cgctgcttga cggccacgac ctgctgagga caaacgcctc gaagcagacg 300
gcggcgctgg gtgcctgaa ggaggaggtc ggagactgccc acagctgctg 350
ctcggggacg caggcgacg tgcagaccac ggcgcggag cttggggagg 400
cgcaggcgaa gctgatggag caggagagcg ccctgcggga actgcgtgag 450
cgcgtgaccc agggcttggc tgaagccggc agggccgtg aggacgtccg 500
cactgagctg ttccgggcgc tggaggccgt gaggctccag aacaactcct 550
gcgagccgtg ccccacgtcg tggctgtcct tcgaggcgtc ctgctacttt 600
ttctctgtgc caaagacgac gtggcgccg ggcgcaggatc actgcgcaga 650
tgccagcgcg cacctggta tcgttgggg cctggatgag caggccttcc 700
tcactcgaa caccggtggc cgtggtaact ggctggccct gaggctgtg 750
cgccatctgg gcaagggtca gggctaccag tgggtggacg gagtctctct 800
cagcttcagc cactggaacc agggagagcc caatgacgct tggggcgccg 850
agaactgtgt catgatgctg cacacggggc tgtggAACGA CGCACCGTGT 900
gacagcgaga aggacggctg gatctgtgag aaaaggcaca actgctgacc 950
ccgcccagtg ccctggagcc ggcgcattt cagcatgtcg tatcctgggg 1000
gctgctcacc tccctggctc ctggagctga ttgccaaaga gttttttct 1050
tcctcatcca ccgctgctga gtctcagaaa cacttggccc aacatagccc 1100
tgtccagccc agtgcctggg ctctggacc tccatgccga cctcatccct 1150

actccactca cgcatcccc acctaaccctc cactagctcc aaaatccctg 1200
ctcctgcgtc cccgtgatat gcctccactt ctctccctaa ccaaggtag 1250
gtgactgagg actggagctg tttggtttc tcgcatttc caccaaactg 1300
gaagctgttt ttgcagcctg aggaagcatc aataaatatt tgagaaatga 1350
aaaaaa 1355

<210> 231

<211> 293

<212> PRT

<213> Homo sapiens

<400> 231

Met Asp Thr Thr Arg Tyr Ser Lys Trp Gly Gly Ser Ser Glu Glu
1 5 10 15

Val Pro Gly Gly Pro Trp Gly Arg Trp Val His Trp Ser Arg Arg
20 25 30

Pro Leu Phe Leu Ala Leu Ala Val Leu Val Thr Thr Val Leu Trp
35 40 45

Ala Val Ile Leu Ser Ile Leu Leu Ser Lys Ala Ser Thr Glu Arg
50 55 60

Ala Ala Leu Leu Asp Gly His Asp Leu Leu Arg Thr Asn Ala Ser
65 70 75

Lys Gln Thr Ala Ala Leu Gly Ala Leu Lys Glu Glu Val Gly Asp
80 85 90

Cys His Ser Cys Cys Ser Gly Thr Gln Ala Gln Leu Gln Thr Thr
95 100 105

Arg Ala Glu Leu Gly Glu Ala Gln Ala Lys Leu Met Glu Gln Glu
110 115 120

Ser Ala Leu Arg Glu Leu Arg Glu Arg Val Thr Gln Gly Leu Ala
125 130 135

Glu Ala Gly Arg Gly Arg Glu Asp Val Arg Thr Glu Leu Phe Arg
140 145 150

Ala Leu Glu Ala Val Arg Leu Gln Asn Asn Ser Cys Glu Pro Cys
155 160 165

Pro Thr Ser Trp Leu Ser Phe Glu Gly Ser Cys Tyr Phe Phe Ser
170 175 180

Val Pro Lys Thr Thr Trp Ala Ala Gln Asp His Cys Ala Asp
185 190 195

Ala Ser Ala His Leu Val Ile Val Gly Gly Leu Asp Glu Gln Gly
200 205 210

Phe Leu Thr Arg Asn Thr Arg Gly Arg Gly Tyr Trp Leu Gly Leu
215 220 225

Arg Ala Val Arg His Leu Gly Lys Val Gln Gly Tyr Gln Trp Val
230 235 240

Asp Gly Val Ser Leu Ser Phe Ser His Trp Asn Gln Gly Glu Pro
245 250 255

Asn Asp Ala Trp Gly Arg Glu Asn Cys Val Met Met Leu His Thr
260 265 270

Gly Leu Trp Asn Asp Ala Pro Cys Asp Ser Glu Lys Asp Gly Trp
275 280 285

Ile Cys Glu Lys Arg His Asn Cys
290

<210> 232
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 232
gcgagaactg tgtcatgatg ctgc 24

<210> 233
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 233
gtttctgaga ctcagcagcg gtgg 24

<210> 234
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 234
caccgttgta cagcgagaag gacggctgga tctgtgagaa aaggcacaac 50

<210> 235
<211> 1847
<212> DNA
<213> Homo sapiens

<400> 235

gccagggaa gagggtgate cgaccgggg aaggtcgctg ggcagggcga 50
gttggaaag cggcagcccc cgccgcccc gcagccctt ctccctcctt 100
ctcccacgtc ctatcgctt ctcgtggag gccaggccgt gcagcatcga 150
agacaggagg aactggagcc tcattggccg gcccggggcg ccggcctcgg 200
gcttaatacg gagctccggg ctctggctgg gacccgaccg ctgcccggcg 250
cgctcccgct gtcctgccc ggtgatggaa aaccccagcc cggccgccc 300
cctggcaag gccctctgca ctctcctctt ggccactctc ggcggcccg 350
gccagcctct tggggagag tccatctgtt ccgcagagc cccggccaaa 400
tacagcatca cttcacggg caagtggagc cagacggct tcccaagca 450
gtacccctg ttccgcccc ctgcgcagt gtctcgctg ctggggccg 500
cgcatagctc cgactacagc atgtggagga agaaccagta cgtagtaac 550
gggctgcgcg actttgcga ggcggcgag gcctggcgca tgatgaagga 600
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cgactggtc gtggcgtgg acagcctgga cctgtgcac gggaccgtt 800
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cggtgcgcac agagcccgag ggccttcatac cctccggccc cagtcctgac 1050
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cgagccatg ggggtgcggg ggctcctgtg caggctcatg ctgcaggcgg 1350
ccgagggcac aggggtttc gcgctgctcc tgaccgcgt gaggccgcgc 1400

cgaccatctc tgcactgaag ggccctctgg tggccggcac gggcattggg 1450
aaacagcctc ctccttccc aactttgctt cttaggggcc cccgtgtccc 1500
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cagctactct aaattatgtc tccttataag ttattgctgc tccaggagat 1600
tgtccttcat cgtccagggg cctggctccc acgtggttgc agataacctca 1650
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agcgggggcc acttgagaag tgaataaatg gggcggttgc ggaagcgtca 1750
gtgtttccat gttatggatc tctctgcgtt tgaataaaaga ctatcttgt 1800
tgctcacaaa aaaaaaaaaaaaaaaa aaaaaaaaaaaa aaaaaaaaaaaa 1847

<210> 236

<211> 331

<212> PRT

<213> Homo sapiens

<400> 236

Met Glu Asn Pro Ser Pro Ala Ala Ala Leu Gly Lys Ala Leu Cys
1 5 10 15

Ala Leu Leu Leu Ala Thr Leu Gly Ala Ala Gly Gln Pro Leu Gly
20 25 30

Gly Glu Ser Ile Cys Ser Ala Arg Ala Pro Ala Lys Tyr Ser Ile
35 40 45

Thr Phe Thr Gly Lys Trp Ser Gln Thr Ala Phe Pro Lys Gln Tyr
50 55 60

Pro Leu Phe Arg Pro Pro Ala Gln Trp Ser Ser Leu Leu Gly Ala
65 70 75

Ala His Ser Ser Asp Tyr Ser Met Trp Arg Lys Asn Gln Tyr Val
80 85 90

Ser Asn Gly Leu Arg Asp Phe Ala Glu Arg Gly Glu Ala Trp Ala
95 100 105

Leu Met Lys Glu Ile Glu Ala Ala Gly Glu Ala Leu Gln Ser Val
110 115 120

His Glu Val Phe Ser Ala Pro Ala Val Pro Ser Gly Thr Gly Gln
125 130 135

Thr Ser Ala Glu Leu Glu Val Gln Arg Arg His Ser Leu Val Ser
140 145 150

Phe Val Val Arg Ile Val Pro Ser Pro Asp Trp Phe Val Gly Val
155 160 165

Asp Ser Leu Asp Leu Cys Asp Gly Asp Arg Trp Arg Glu Gln Ala
170 175 180

Ala Leu Asp Leu Tyr Pro Tyr Asp Ala Gly Thr Asp Ser Gly Phe
185 190 195

Thr Phe Ser Ser Pro Asn Phe Ala Thr Ile Pro Gln Asp Thr Val
200 205 210

Thr Glu Ile Thr Ser Ser Pro Ser His Pro Ala Asn Ser Phe
215 220 225

Tyr Tyr Pro Arg Leu Lys Ala Leu Pro Pro Ile Ala Arg Val Thr
230 235 240

Leu Leu Arg Leu Arg Gln Ser Pro Arg Ala Phe Ile Pro Pro Ala
245 250 255

Pro Val Leu Pro Ser Arg Asp Asn Glu Ile Val Asp Ser Ala Ser
260 265 270

Val Pro Glu Thr Pro Leu Asp Cys Glu Val Ser Leu Trp Ser Ser
275 280 285

Trp Gly Leu Cys Gly Gly His Cys Gly Arg Leu Gly Thr Lys Ser
290 295 300

Arg Thr Arg Tyr Val Arg Val Gln Pro Ala Asn Asn Gly Ser Pro
305 310 315

Cys Pro Glu Leu Glu Glu Ala Glu Cys Val Pro Asp Asn Cys
320 325 330

Val

<210> 237
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 237
cagcactgcc aggggaagag gg 22

<210> 238
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 238
caggactcgc tacgtccg 18

<210> 239
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 239
cagcccctttc tcctcccttcc tccc 24

<210> 240
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 240
gcagtttatca gggacgcact cagcc 25

<210> 241
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 241
ccagcgagag gcagatag 18

<210> 242
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 242
cggtcacccgt gtcctgcggg atg 23

<210> 243
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 243
cagcccctttc tcctcccttcc tcccacgtcc tatctgcctc tc 42

<210> 244

<211> 1894

<212> DNA

<213> Homo sapiens

<400> 244

ggcggcgtcc gtgagggct ccttggca gggtagtgt ttgggtccc 50
tgtcttcgt gatattgaca aactgaagct ttcctgcacc actggactta 100
aggaagagt tactcgtagg cgacagctt tagtgccgg ccggccgctc 150
tcatcccccg taaggagcag agtccttgc actgaccaag atgagcaaca 200
tctacatcca ggagcctccc acgaatggga aggttttatt gaaaactaca 250
gctggagata ttgacataga gttgtggtcc aaagaagctc ctaaagctt 300
cagaaatttt atccaacttt gtttggaaagc ttattatgac aataccattt 350
ttcatagagt tgtgcctgg ttcatagtcc aaggcggaga tcctactggc 400
acagggagtg gtggagagtc tatctatgga gcgcattca aagatgaatt 450
tcattcacgg ttgcgtttta atcggagagg actggttgcc atggcaaatg 500
ctggttctca tgataatggc agccagttt tcttcacact gggtcgagca 550
gatgaactta acaataagca taccatctt ggaaaggta caggggatac 600
agtatataac atgttgcac tgtcagaagt agacattgtat gatgacgaaa 650
gaccacataa tccacacaaa ataaaaagct gtgaggtttt gtttaatcct 700
tttgcgtaca tcattccaag ggaaattaaa aggctgaaaa aagagaaacc 750
agaggagaa gtaaagaaat tgaaacccaa aggacaaaaa aatttttagtt 800
tactttcatt tggagagggaa gctgaggaag aagaggagga agtaaatcga 850
gttagtcaga gcatgaaggg caaaagcaaa agtagtcatg acttgcttaa 900
ggatgatcca catctcagtt ctgttccagt tgtagaaagt gaaaaaggta 950
atgcaccaga tttagttgtat gatggagaag atgaaagtgc agagcatgtat 1000
gaatatattt atgggtatga aaagaacctg atgagagaaa gaattgccaa 1050
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aagtggagaa gaaatcagtc agccgcagtg aagagctcag aaaagaagca 1150
agacaattaa aacggaaact cttagcagca aaacaaaaaa aagtagaaaa 1200
tgcagcaaaa caagcagaaa aaagaagtga agaggaagaa gccccctccag 1250
atggtgctgt tgccgaatac agaagagaaa agcaaaagta tgaagcttg 1300

aggaagcaac agtcaaagaa gggacttcc cgggaagatc agacccttgc 1350
actgctgaac cagttaaat ctaaactcac tcaagcaatt gctgaaacac 1400
ctgaaaatga cattcctgaa acagaagtag aagatgatga aggatggatg 1450
tcacatgtac ttcatgttga ggataaaagc agaaaagtga aagatgcaag 1500
catgcaagac tcagatacat ttgaaatcta tgatcctcg aatccagtg 1550
ataaaagaag gagggaaagaa agcaaaaagc tgatgagaga gaaaaaaagaa 1600
agaagataaa atgagaataa tgataaccag aacttgctgg aatgtgcct 1650
acaatggcct tgtaacagcc attgttccc acagcatcac tttagggtgt 1700
gaaaagaagt attttgaac ctgttgtctg gtttgaaaa acaattatct 1750
tgtttgcaa attgtgaaat gatgtaagca aatgctttg gttactggta 1800
catgtgtttt ttccctagctg acctttata ttgctaaatc taaaataaaa 1850
taactttcct tccacaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1894

<210> 245

<211> 472

<212> PRT

<213> Homo sapiens

<400> 245

Met	Ser	Asn	Ile	Tyr	Ile	Gln	Glu	Pro	Pro	Thr	Asn	Gly	Lys	Val
1					5					10				15

Leu	Leu	Lys	Thr	Thr	Ala	Gly	Asp	Ile	Asp	Ile	Glu	Leu	Trp	Ser
					20				25					30

Lys	Glu	Ala	Pro	Lys	Ala	Cys	Arg	Asn	Phe	Ile	Gln	Leu	Cys	Leu
				35					40					45

Glu	Ala	Tyr	Tyr	Asp	Asn	Thr	Ile	Phe	His	Arg	Val	Val	Pro	Gly
				50				55						60

Phe	Ile	Val	Gln	Gly	Gly	Asp	Pro	Thr	Gly	Thr	Gly	Ser	Gly	Gly
				65				70						75

Glu	Ser	Ile	Tyr	Gly	Ala	Pro	Phe	Lys	Asp	Glu	Phe	His	Ser	Arg
				80				85						90

Leu	Arg	Phe	Asn	Arg	Arg	Gly	Leu	Val	Ala	Met	Ala	Asn	Ala	Gly
				95				100						105

Ser	'His	Asp	Asn	Gly	Ser	Gln	Phe	Phe	Phe	Thr	Leu	Gly	Arg	Ala
				110				115						120

Asp	Glu	Leu	Asn	Asn	Lys	His	Thr	Ile	Phe	Gly	Lys	Val	Thr	Gly
				125				130						135

Asp Thr Val Tyr Asn Met Leu Arg Leu Ser Glu Val Asp Ile Asp
140 145 150

Asp Asp Glu Arg Pro His Asn Pro His Lys Ile Lys Ser Cys Glu
155 160 165

Val Leu Phe Asn Pro Phe Asp Asp Ile Ile Pro Arg Glu Ile Lys
170 175 180

Arg Leu Lys Lys Glu Lys Pro Glu Glu Glu Val Lys Lys Leu Lys
185 190 195

Pro Lys Gly Thr Lys Asn Phe Ser Leu Leu Ser Phe Gly Glu Glu
200 205 210

Ala Glu Glu Glu Glu Val Asn Arg Val Ser Gln Ser Met
215 220 225

Lys Gly Lys Ser Lys Ser Ser His Asp Leu Leu Lys Asp Asp Pro
230 235 240

His Leu Ser Ser Val Pro Val Val Glu Ser Glu Lys Gly Asp Ala
245 250 255

Pro Asp Leu Val Asp Asp Gly Glu Asp Glu Ser Ala Glu His Asp
260 265 270

Glu Tyr Ile Asp Gly Asp Glu Lys Asn Leu Met Arg Glu Arg Ile
275 280 285

Ala Lys Lys Leu Lys Lys Asp Thr Ser Ala Asn Val Lys Ser Ala
290 295 300

Gly Glu Gly Glu Val Glu Lys Lys Ser Val Ser Arg Ser Glu Glu
305 310 315

Leu Arg Lys Glu Ala Arg Gln Leu Lys Arg Glu Leu Leu Ala Ala
320 325 330

Lys Gln Lys Lys Val Glu Asn Ala Ala Lys Gln Ala Glu Lys Arg
335 340 345

Ser Glu Glu Glu Glu Ala Pro Pro Asp Gly Ala Val Ala Glu Tyr
350 355 360

Arg Arg Glu Lys Gln Lys Tyr Glu Ala Leu Arg Lys Gln Gln Ser
365 370 375

Lys Lys Gly Thr Ser Arg Glu Asp Gln Thr Leu Ala Leu Leu Asn
380 385 390

Gln Phe Lys Ser Lys Leu Thr Gln Ala Ile Ala Glu Thr Pro Glu
395 400 405

Asn Asp Ile Pro Glu Thr Glu Val Glu Asp Asp Glu Gly Trp Met
410 415 420

Ser His Val Leu Gln Phe Glu Asp Lys Ser Arg Lys Val Lys Asp
425 430 435

Ala Ser Met Gln Asp Ser Asp Thr Phe Glu Ile Tyr Asp Pro Arg
440 445 450

Asn Pro Val Asn Lys Arg Arg Arg Glu Glu Ser Lys Lys Leu Met
455 460 465

Arg Glu Lys Lys Glu Arg Arg
470

<210> 246

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 246

tgcggagatc ctactggcac aggg 24

<210> 247

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 247

cgagtttagtc agagcatg 18

<210> 248

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 248

cagatgggtgc tgttgccg 18

<210> 249

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 249

caactggaac aggaactgag atgtggatc 29

<210> 250

<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 250
ctggttcagc agtgcaggg tctg 24

<210> 251
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 251
cctctccgat taaaacgc 18

<210> 252
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 252
gagaggactg gttgccatgg caaatgctgg ttctcatgat aatgg 45

<210> 253
<211> 2456
<212> DNA
<213> Homo sapiens

<400> 253
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<211> 545
<212> PRT
<213> Homo sapiens

<400> 254

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Thr	Val	Ala	Ala	Gly	Gly	Thr	Ser	Thr	Gly	Gly	Val	Phe	Ser	Phe
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Gly	Thr	Gly	Thr	Ser	Ser	Asn	Pro	Ser	Val	Gly	Leu	Asn	Phe	Gly
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Asn	Leu	Gly	Ser	Thr	Ser	Thr	Pro	Ala	Thr	Thr	Ser	Ala	Pro	Ser
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Ser	Gly	Phe	Gly	Thr	Gly	Leu	Phe	Gly	Ser	Lys	Pro	Ala	Thr	Gly
				65				70					75	

Phe	Thr	Leu	Gly	Gly	Thr	Asn	Thr	Gly	Ala	Leu	His	Thr	Lys	Arg
					80				85				90	

Pro	Gln	Val	Val	Thr	Lys	Tyr	Gly	Thr	Leu	Gln	Gly	Lys	Gln	Met
				95				100					105	

His	Val	Gly	Lys	Thr	Pro	Ile	Gln	Val	Phe	Leu	Gly	Val	Pro	Phe
				110				115					120	

Ser	Arg	Pro	Pro	Leu	Gly	Ile	Leu	Arg	Phe	Ala	Pro	Pro	Glu	Pro
				125				130					135	

Pro Glu Pro Trp Lys Gly Ile Arg Asp Ala Thr Thr Tyr Pro Pro
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Gly Trp Ser Leu Ala Leu Ser Pro Gly Trp Ser Ala Val Ala Arg
155 160 165

Ser Arg Leu Thr Ala Thr Ser Ala Ser Arg Val Gln Ala Ser Leu
170 175 180

Leu Pro Gln Pro Leu Ser Val Trp Gly Tyr Arg Cys Leu Gln Glu
185 190 195

Ser Trp Gly Gln Leu Ala Ser Met Tyr Val Ser Thr Arg Glu Arg
200 205 210

Tyr Lys Trp Leu Arg Phe Ser Glu Asp Cys Leu Tyr Leu Asn Val
215 220 225

Tyr Ala Pro Ala Arg Ala Pro Gly Asp Pro Gln Leu Pro Val Met
230 235 240

Val Trp Phe Pro Gly Gly Ala Phe Ile Val Gly Ala Ala Ser Ser
245 250 255

Tyr Glu Gly Ser Asp Leu Ala Ala Arg Glu Lys Val Val Leu Val
260 265 270

Phe Leu Gln His Arg Leu Gly Ile Phe Gly Phe Leu Ser Thr Asp
275 280 285

Asp Ser His Ala Arg Gly Asn Trp Gly Leu Leu Asp Gln Met Ala
290 295 300

Ala-Leu-Arg-Trp-Val-Gln-Glu-Asn-Ile-Ala-Ala-Phe-Gly-Gly-Asp
305 310 315

Pro Gly Asn Val Thr Leu Phe Gly Gln Ser Ala Gly Ala Met Ser
320 325 330

Ile Ser Gly Leu Met Met Ser Pro Leu Ala Ser Gly Leu Phe His
335 340 345

Arg Ala Ile Ser Gln Ser Gly Thr Ala Leu Phe Arg Leu Phe Ile
350 355 360

Thr Ser Asn Pro Leu Lys Val Ala Lys Lys Val Ala His Leu Ala
365 370 375

Gly Cys Asn His Asn Ser Thr Gln Ile Leu Val Asn Cys Leu Arg
380 385 390

Ala Leu Ser Gly Thr Lys Val Met Arg Val Ser Asn Lys Met Arg
395 400 405

Phe Leu Gln Leu Asn Phe Gln Arg Asp Pro Glu Glu Ile Ile Trp
410 415 420

Ser Met Ser Pro Val Val Asp Gly Val Val Ile Pro Asp Asp Pro
425 430 435

Leu Val Leu Leu Thr Gln Gly Lys Val Ser Ser Val Pro Tyr Leu
440 445 450

Leu Gly Val Asn Asn Leu Glu Phe Asn Trp Leu Leu Pro Tyr Asn
455 460 465

Ile Thr Lys Glu Gln Val Pro Leu Val Val Glu Glu Tyr Leu Asp
470 475 480

Asn Val Asn Glu His Asp Trp Lys Met Leu Arg Asn Arg Met Met
485 490 495

Asp Ile Val Gln Asp Ala Thr Phe Val Tyr Ala Thr Leu Gln Thr
500 505 510

Ala His Tyr His Arg Glu Thr Pro Met Met Gly Ile Cys Pro Ala
515 520 525

Gly His Ala Thr Thr Arg Met Lys Ser Thr Cys Ser Trp Ile Leu
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Pro Gln Glu Trp Ala
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<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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agggtgcctgc aggagtcctg ggg 23

<210> 256
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<220>
<223> Synthetic oligonucleotide probe

<400> 256
ccacacctcagg aagccgaaga tgcc 24

<210> 257
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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gaacggtaca agtggctgcg cttcagcgag gactgtctgt acctg 45

<210> 258
<211> 2764
<212> DNA
<213> Homo sapiens

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<210> 259

<211> 544

<212> PRT

<213> Homo sapiens

<400> 259

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20 25 30

Val Pro Glu Gly Leu Cys Ile Ser Val Pro Cys Ser Phe Ser Tyr
35 40 45

Pro Arg Gln Asp Trp Thr Gly Ser Thr Pro Ala Tyr Gly Tyr Trp
50 55 60

Phe Lys Ala Val Thr Glu Thr Thr Lys Gly Ala Pro Val Ala Thr
65 70 75

Asn His Gln Ser Arg Glu Val Glu Met Ser Thr Arg Gly Arg Phe
80 85 90

Gln Leu Thr Gly Asp Pro Ala Lys Gly Asn Cys Ser Leu Val Ile
95 100 105

Arg Asp Ala Gln Met Gln Asp Glu Ser Gln Tyr Phe Phe Arg Val
110 115 120

Glu Arg Gly Ser Tyr Val Thr Tyr Asn Phe Met Asn Asp Gly Phe
125 130 135

Phe Leu Lys Val Thr Val Leu Ser Phe Thr Pro Arg Pro Gln Asp
140 145 150

His Asn Thr Asp Leu Thr Cys His Val Asp Phe Ser Arg Lys Gly
155 160 165

Val Ser Ala Gln Arg Thr Val Arg Leu Arg Val Ala Tyr Ala Pro
170 175 180

Arg Asp Leu Val Ile Ser Ile Ser Arg Asp Asn Thr Pro Ala Leu
185 190 195

Glu Pro Gln Pro Gln Gly Asn Val Pro Tyr Leu Glu Ala Gln Lys
200 205 210

Gly Gln Phe Leu Arg Leu Leu Cys Ala Ala Asp Ser Gln Pro Pro
215 220 225

Ala	Thr	Leu	Ser	Trp	Val	Leu	Gln	Asn	Arg	Val	Leu	Ser	Ser	Ser
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His	Pro	Trp	Gly	Pro	Arg	Pro	Leu	Gly	Leu	Glu	Leu	Pro	Gly	Val
				245					250					255
Lys	Ala	Gly	Asp	Ser	Gly	Arg	Tyr	Thr	Cys	Arg	Ala	Glu	Asn	Arg
				260					265					270
Leu	Gly	Ser	Gln	Gln	Arg	Ala	Leu	Asp	Leu	Ser	Val	Gln	Tyr	Pro
				275					280					285
Pro	Glu	Asn	Leu	Arg	Val	Met	Val	Ser	Gln	Ala	Asn	Arg	Thr	Val
				290					295					300
Leu	Glu	Asn	Leu	Gly	Asn	Gly	Thr	Ser	Leu	Pro	Val	Leu	Glu	Gly
				305					310					315
Gln	Ser	Leu	Cys	Leu	Val	Cys	Val	Thr	His	Ser	Ser	Pro	Pro	Ala
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Arg	Leu	Ser	Trp	Thr	Gln	Arg	Gly	Gln	Val	Leu	Ser	Pro	Ser	Gln
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Pro	Ser	Asp	Pro	Gly	Val	Leu	Glu	Leu	Pro	Arg	Val	Gln	Val	Glu
				350					355					360
His	Glu	Gly	Glu	Phe	Thr	Cys	His	Ala	Arg	His	Pro	Leu	Gly	Ser
				365					370					375
Gln	His	Val	Ser	Leu	Ser	Leu	Ser	Val	His	Tyr	Lys	Lys	Gly	Leu
				380					385					390
Ile	Ser	Thr	Ala	Phe	Ser	Asn	Gly	Ala	Phe	Leu	Gly	Ile	Gly	Ile
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Thr	Ala	Leu	Leu	Phe	Leu	Cys	Leu	Ala	Leu	Ile	Ile	Met	Lys	Ile
				410					415					420
Leu	Pro	Lys	Arg	Arg	Thr	Gln	Thr	Glu	Thr	Pro	Arg	Pro	Arg	Phe
				425					430					435
Ser	Arg	His	Ser	Thr	Ile	Leu	Asp	Tyr	Ile	Asn	Val	Val	Pro	Thr
				440					445					450
Ala	Gly	Pro	Leu	Ala	Gln	Lys	Arg	Asn	Gln	Lys	Ala	Thr	Pro	Asn
				455					460					465
Ser	Pro	Arg	Thr	Pro	Pro	Pro	Pro	Gly	Ala	Pro	Ser	Pro	Glu	Ser
				470					475					480
Lys	Lys	Asn	Gln	Lys	Lys	Gln	Tyr	Gln	Leu	Pro	Ser	Phe	Pro	Glu
				485					490					495
Pro	Lys	Ser	Ser	Thr	Gln	Ala	Pro	Glu	Ser	Gln	Glu	Ser	Gln	Glu
				500					505					510

Glu Leu His Tyr Ala Thr Leu Asn Phe Pro Gly Val Arg Pro Arg
515 520 525

Pro Glu Ala Arg Met Pro Lys Gly Thr Gln Ala Asp Tyr Ala Glu
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Val Lys Phe Gln

<210> 260

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 260

caaaggcctgc gcctggctcg tg 22

<210> 261

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 261

ttctggagcc cagagggtgc tgag 24

<210> 262

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 262

ggagctgcca cccattcaaa tggagcacga aggagagttc acctg 45

<210> 263

<211> 2857

<212> DNA

<213> Homo sapiens

<400> 263

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<210> 264
<211> 772
<212> PRT
<213> Homo sapiens

<400> 264

Met Asn Cys Tyr Leu Leu Leu Arg Phe Met Leu Gly Ile Pro Leu
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Leu Trp Pro Cys Leu Gly Ala Thr Glu Asn Ser Gln Thr Lys Lys
20 25 30

Val Lys Gln Pro Val Arg Ser His Leu Arg Val Lys Arg Gly Trp
35 40 45

Val Trp Asn Gln Phe Phe Val Pro Glu Glu Met Asn Thr Thr Ser
50 55 60

His His Ile Gly Gln Leu Arg Ser Asp Leu Asp Asn Gly Asn Asn
65 70 75

Ser Phe Gln Tyr Lys Leu Leu Gly Ala Gly Ala Gly Ser Thr Phe
80 85 90

Ile Ile Asp Glu Arg Thr Gly Asp Ile Tyr Ala Ile Gln Lys Leu
95 100 105

Asp Arg Glu Glu Arg Ser Leu Tyr Ile Leu Arg Ala Gln Val Ile
110 115 120

Asp Ile Ala Thr Gly Arg Ala Val Glu Pro Glu Ser Glu Phe Val
125 130 135

Ile Lys Val Ser Asp Ile Asn Asp Asn Glu Pro Lys Phe Leu Asp
140 145 150

Glu Pro Tyr Glu Ala Ile Val Pro Glu Met Ser Pro Glu Gly Thr
155 160 165

Leu Val Ile Gin Val Thr Ala Ser Asp Ala Asp Asp Pro Ser Ser
170 175 180

Gly Asn Asn Ala Arg Leu Leu Tyr Ser Leu Leu Gln Gly Gln Pro
185 190 195

Tyr Phe Ser Val Glu Pro Thr Thr Gly Val Ile Arg Ile Ser Ser
200 205 210

Lys Met Asp Arg Glu Leu Gln Asp Glu Tyr Trp Val Ile Ile Gln
215 220 225

Ala Lys Asp Met Ile Gly Gln Pro Gly Ala Leu Ser Gly Thr Thr
230 235 240

Ser Val Leu Ile Lys Leu Ser Asp Val Asn Asp Asn Lys Pro Ile
245 250 255

Phe Lys Glu Ser Leu Tyr Arg Leu Thr Val Ser Glu Ser Ala Pro
260 265 270

Thr Gly Thr Ser Ile Gly Thr Ile Met Ala Tyr Asp Asn Asp Ile
275 280 285

Gly Glu Asn Ala Glu Met Asp Tyr Ser Ile Glu Glu Asp Asp Ser
290 295 300

Gln Thr Phe Asp Ile Ile Thr Asn His Glu Thr Gln Glu Gly Ile
305 310 315

Val Ile Leu Lys Lys Val Asp Phe Glu His Gln Asn His Tyr
320 325 330

Gly Ile Arg Ala Lys Val Lys Asn His His Val Pro Glu Gln Leu
335 340 345

Met Lys Tyr His Thr Glu Ala Ser Thr Thr Phe Ile Lys Ile Gln
350 355 360

Val Glu Asp Val Asp Glu Pro Pro Leu Phe Leu Leu Pro Tyr Tyr
365 370 375

Val Phe Glu Val Phe Glu Glu Thr Pro Gln Gly Ser Phe Val Gly
380 385 390

Val Val Ser Ala Thr Asp Pro Asp Asn Arg Lys Ser Pro Ile Arg
395 400 405

Tyr Ser Ile Thr Arg Ser Lys Val Phe Asn Ile Asn Asp Asn Gly
410 415 420

Thr Ile Thr Thr Ser Asn Ser Leu Asp Arg Glu Ile Ser Ala Trp
425 430 435

Tyr Asn Leu Ser Ile Thr Ala Thr Glu Lys Tyr Asn Ile Glu Gln
440 445 450

Ile Ser Ser Ile Pro Leu Tyr Val Gln Val Leu Asn Ile Asn Asp
455 460 465

His Ala Pro Glu Phe Ser Gln Tyr Tyr Glu Thr Tyr Val Cys Glu
470 475 480

Asn Ala Gly Ser Gly Gln Val Ile Gln Thr Ile Ser Ala Val Asp
485 490 495

Arg Asp Glu Ser Ile Glu Glu His His Phe Tyr Phe Asn Leu Ser
500 505 510

Val Glu Asp Thr Asn Asn Ser Ser Phe Thr Ile Ile Asp Asn Gln
515 520 525

Asp Asn Thr Ala Val Ile Leu Thr Asn Arg Thr Gly Phe Asn Leu
530 535 540

Gln Glu Glu Pro Val Phe Tyr Ile Ser Ile Leu Ile Ala Asp Asn
545 550 555

Gly Ile Pro Ser Leu Thr Ser Thr Asn Thr Leu Thr Ile His Val
560 565 570

Cys Asp Cys Gly Asp Ser Gly Ser Thr Gln Thr Cys Gln Tyr Gln
575 580 585

Glu Leu Val Leu Ser Met Gly Phe Lys Thr Glu Val Ile Ile Ala
590 595 600

Ile Leu Ile Cys Ile Met Ile Ile Phe Gly Phe Ile Phe Leu Thr
605 610 615

Leu Gly Leu Lys Gln Arg Arg Lys Gln Ile Leu Phe Pro Glu Lys
620 625 630

Ser Glu Asp Phe Arg Glu Asn Ile Phe Gln Tyr Asp Asp Glu Gly
635 640 645

Gly Gly Glu Glu Asp Thr Glu Ala Phe Asp Ile Ala Glu Leu Arg
650 655 660

Ser Ser Thr Ile Met Arg Glu Arg Lys Thr Arg Lys Thr Thr Ser
665 670 675

Ala Glu Ile Arg Ser Leu Tyr Arg Gln Ser Leu Gln Val Gly Pro
680 685 690

Asp Ser Ala Ile Phe Arg Lys Phe Ile Leu Glu Lys Leu Glu Glu
695 700 705

Ala Asn Thr Asp Pro Cys Ala Pro Pro Phe Asp Ser Leu Gln Thr
710 715 720

Tyr Ala Phe Glu Gly Thr Gly Ser Leu Ala Gly Ser Leu Ser Ser
725 730 735

Leu Glu Ser Ala Val Ser Asp Gln Asp Glu Ser Tyr Asp Tyr Leu
740 745 750

Asn Glu Leu Gly Pro Arg Phe Lys Arg Leu Ala Cys Met Phe Gly
755 760 765

Ser Ala Val Gln Ser Asn Asn
770

<210> 265
<211> 349
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 24, 60, 141, 226, 228, 249, 252
<223> unknown base

<400> 265
atttcaaggc cagccatatt tttntgttga accaacaaca ggagtataa 50
gaatattn taaaatggat agagaactgc aagatgagta ttgggttaatc 100

attcaagcca aggacatgat tggtcagcca ggagcggtgt ntggaacaac 150
aagtgtatta attaaacttt cagatgttaa tgacaataag cctatattta 200
aagaaaaggttt ataccgcttg actgtntntg aatctgcacc cactgggant 250
tntatagggaa caatcatggc atatgataat gacataggag agaatgcaga 300
aatggattac agcattgaag aggatgattc gcaaacattt gacattatt 349

<210> 266
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 266
cttgactgtc tctgaatctg caccc 25

<210> 267
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 267
aagtgggtgga agcctccagt gtgg 24

<210> 268
<211> 52
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 268
ccactacggt attagagcaa aagttaaaaa ccacatgggt tcctggagca 50
gc 52

<210> 269
<211> 2747
<212> DNA
<213> Homo sapiens

<400> 269
gcaaaccttag cttctagtat ccagactcca ggcggcccc gggcgcgac 50
cccaaccccg acccagagct tctccagcg gggcgcgac 100
cccgcccttaa cttcctccgc gggcccagc caccttcggg agtccgggtt 150

gcccacctgc aaactctccg cttctgcac ctgccacccc tgagccagcg 200
cgggcccccg agcgagtcat ggccaacgcg gggctgcagc ttttgggtt 250
cattctcgcc ttccctggat ggatcggcgc catcgtcagc actgcccgc 300
cccagtggag gatttactcc tatgccggcg acaacatcg taccggccag 350
gccatgtacg agggctgtg gatgtcctgc gtgtcgaga gcaccggcga 400
gatccagtgc aaagtcttg actccttgct gaatctgagc agcacattgc 450
aagcaacccg tgccttgatg gtgggtggca tcctctggg agtgatagca 500
atcttgggg ccaccgttgg catgaagtgt atgaagtgt tggaaagacga 550
tgaggtgcag aagatgagga tggctgtcat tgggggtgcg atatttcttc 600
ttgcaggctt ggctatttttta gttgccacag catggtatgg caatagaatc 650
gttcaagaat tctatgaccc tatgacccca gtcaatgccca ggtacgaatt 700
tggtcaggct ctcttcactg gctgggtgc tgcttcttc tgccttctgg 750
gaggtgccct actttgctgt tcctgtcccc gaaaaacaac ctcttacccca 800
acaccaaggc cctatccaaa acctgcacct tccagcggga aagactacgt 850
gtgacacaga ggcaaaagga gaaaatcatg ttgaaacaaa ccgaaaatgg 900
acatttagat actatcatta acatttagac cttagaattt tgggtattgt 950
aatctgaagt atggtattac aaaacaaaca aacaaacaaa aaacccatgt 1000

gttaaaatac tcagtgcctaa acatggctt atcttatttt atcttcttc 1050
ctcaatatac gagggaaagat ttttccattt gtattactgc ttcccatgt 1100
gtaatcatac tcaaattgggg gaaggggtgc tccttaata tatatagata 1150
tgtatatac catgttttc tattaaaaat agacagtaaa atactattct 1200
cattatgtt atactagcat actaaaaata tctctaaaat agttaatgt 1250
atttatattcc atattgatga agatgtttat tggatattt tcttttcgt 1300
ccttatatac atatgttaca gtcaaatac attactctt cttcatttgc 1350
tttgggtgcc tttgccacaa gacctggct aatttaccaa ggatgaattc 1400
tttcaattct tcatgcgtgc cttttcata tacttatttt attttttacc 1450
ataatcttat agcacttgca tcgttattaa gcccttattt gttttgtgtt 1500
tcattggtct ctatctcctg aatctaacac attcatagc ctacatttta 1550
gtttctaaag ccaagaagaa tttattacaa atcagaactt tggaggcaaa 1600

tctttctgca tgaccaaagt gataaattcc tggacccctt cccacacaat 1650
ccctgtactc tgaccatag cactcttggtt tgcttgaaa atatttgtcc 1700
aattgagtag ctgcattgctg ttccccagg tggtaaca caacttttatt 1750
gattgaattt ttaagctact tattcatagt tttatatccc cctaaactac 1800
cttttggc cccatttcctt aattgtattt ttttccaag tgtaattatc 1850
atgcgtttta tatcttccta ataagggttg gtctgtttgt ctgaacaaag 1900
tgcttagactt tctggagtga taatctggtg acaaataattc tctctgtac 1950
tgtaagcaag tcacttaatc tttctacctc tttttctat ctgccaatt 2000
gagataatga tacttaacca gttagaagag gtagtgtgaa tattaattag 2050
tttatattac tcttattctt tgaacatgaa ctatgcctat gtagtgtctt 2100
tatttgctca gctggctgag acactgaaga agtcaactgaa caaaacctac 2150
acacgtacct tcattgtgatt cactgccttc ctctctctac cagtctattt 2200
ccactgaaca aaacctacac acatacccttc atgtggttca gtgccttcct 2250
ctctctacca gtctatttcc actgaacaaa acctacgcac ataccttcat 2300
gtggctcagt gccttcctct ctctaccagt ctatccat tcttcagct 2350
gtgtctgaca tgtttgct ctgttccatt ttaacaactg ctcttacttt 2400

tccagtctgt acagaatgct atttcacttg agcaagatga tgtaatggaa 2450
agggtgttgg cactgggtgc tggagacctg gatttggatc ttgggtctat 2500
caatcaccgt ctgtgttga gcaaggcatt tggctgctgt aagcttattt 2550
cttcatctgt aagcggtgg ttgtaattcc tgatcttccc acctcacagt 2600
gatgttgggg ggatccagtg agatagaata catgtaagtg tggtttgta 2650
atttaaaaag tgctatacta agggaaagaa ttgaggaatt aactgcatac 2700
gttttgggtgt tgctttcaa atgtttgaaa ataaaaaaaaa tgttaag 2747

<210> 270
<211> 211
<212> PRT
<213> Homo sapiens

<400> 270
Met Ala Asn Ala Gly Leu Gln Leu Leu Gly Phe Ile Leu Ala Phe
1 5 10 15
Leu Gly Trp Ile Gly Ala Ile Val Ser Thr Ala Leu Pro Gln Trp

20	25	30
Arg Ile Tyr Ser Tyr Ala Gly Asp Asn Ile Val Thr Ala Gln Ala		
35	40	45
Met Tyr Glu Gly Leu Trp Met Ser Cys Val Ser Gln Ser Thr Gly		
50	55	60
Gln Ile Gln Cys Lys Val Phe Asp Ser Leu Leu Asn Leu Ser Ser		
65	70	75
Thr Leu Gln Ala Thr Arg Ala Leu Met Val Val Gly Ile Leu Leu		
80	85	90
Gly Val Ile Ala Ile Phe Val Ala Thr Val Gly Met Lys Cys Met		
95	100	105
Lys Cys Leu Glu Asp Asp Glu Val Gln Lys Met Arg Met Ala Val		
110	115	120
Ile Gly Gly Ala Ile Phe Leu Leu Ala Gly Leu Ala Ile Leu Val		
125	130	135
Ala Thr Ala Trp Tyr Gly Asn Arg Ile Val Gln Glu Phe Tyr Asp		
140	145	150
Pro Met Thr Pro Val Asn Ala Arg Tyr Glu Phe Gly Gln Ala Leu		
155	160	165
Phe Thr Gly Trp Ala Ala Ala Ser Leu Cys Leu Leu Gly Gly Ala		
170	175	180
Leu Leu Cys Cys Ser Cys Pro Arg Lys Thr Thr Ser Tyr Pro Thr		
185	190	195
Pro Arg Pro Tyr Pro Lys Pro Ala Pro Ser Ser Gly Lys Asp Tyr		
200	205	210

Val

<210> 271
<211> 564
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 21, 69, 163, 434, 436, 444
<223> unknown base

<400> 271
ttctggccaa acccggggct ncagctgttg ggcttcatct cgccttcctg 50
ggatggatcg gcgccatcnt cacactgccc ttccccagtg gaggattta 100
ctccctatgc tggcgacaac atcgtgaccg cccagcccat gtacgagggg 150

ctgtggatgt ccngcgtgtc gcagagcacc gggcagatcc agtgcaaagt 200
ctttgactcc ttgctgaatc tgagcagcac attgcaagca acccgtgcct 250
tgatggtgtt tggcatcctc ctgggagtga tagcaatctt tgtggccacc 300
gttggcatga agtgtatgaa gtgcttggaa gacgatgagg tgcagaagat 350
gaggatggct gtcattgggg gcgcgatatt tcttcttgca ggtctggcta 400
tttagttgc cacagcatgg tatggcaata gaancnttca acanttctat 450
gaccctatga ccccagtcaa tgccaggtac gaatttggtc aggctctt 500
caactggctgg gctgctgctt ctctctgcct tctggaggt gccctacttt 550
gctgttcctg tccc 564

<210> 272
<211> 498
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 30, 49, 102, 141, 147, 171, 324-325, 339-341
<223> unknown base

<400> 272
acccttgacc caacgcggcc ccccgaccgn ttcatggcca aacgcgggnc 50
tccagctgtt gggcttcatt ctccccttcc tggatggac cggcgcccat 100

cncagcact gcccgtcccc agtggaggat ttactcctat nccggcnaca 150
acatcgtgac cgcccaggcc ntgtacgagg ggctgtggat gtcctgcgtg 200
tcgcagagca cccggcagat ccagtgcaaa gtcttgact ccctgctga 250
atctgagcag cacattgcaa gcaaccgtg ctttgatggc gttggcata 300
ctcctggag tgatagcaat cttnntggcc accgttgttt nnntgta 350
tgaagtgtttt ggaagacgat gaggtgcaga agatgaggat ggctgtcatt 400
gggggcgcga tattttttct tgcaggtctg gctatttttag ttgccacagc 450
atggtatggc aatagaatcg ttcaagaatt ctatgaccct atgaccga 498

<210> 273
<211> 552
<212> DNA
<213> Homo sapiens

<220>
<221> unsure

<222> 25, 57, 67, 94-95, 116, 152, 165, 212, 233, 392-394

<223> unknown base

<400> 273

ggccccgacc attatccaac cgggntcaact gttggctcat ctccctcctg 50
gatgaancgc gccatcntca gactccctgc cccatggaga tttnnccstat 100
gctggcgaca acatcntgac ccccagccat gtacgagggg ctttgaacgt 150
cngcgtgtcg cagancaccg ggcagatcca gtgcaaagtc tttgactcct 200
tgctgaatct gngcagcaca ttgcagcaac ccntgccctg atggtggtt 250
gcatcctcct gggagtgata gcaatcttg tggccaccgt tggcatgaag 300
tgtatgaagt gcttggaaaga cgatgaggtg cagaagatga ggatggctgt 350
cattgggggc gcgatatttc ttcttgcagg tctggctatt tnnnngttgcc 400
acagcatgtt atggcaatag aatcgttcaa gaattctatg accctatgac 450
cccagtcaat gccaggtacg aatttggtca ggctctcttc actggctggg 500
ctgctgcttc tctctgcctt ctgggaggtg ccctactttt ctgttcctgc 550
ga 552

<210> 274

<211> 526

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 25, 50, 60, 123, 127, 370, 395, 397-398, 402-403, 405-407

<223> unknown base

<400> 274

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tggaggattt actcctatgc tggcgacaac atcgtgaccc cccaggccat 100
ttaccgaggg gctttggatg tcntgcntgt cgcaagcac cgggcagatc 150
ccagtgc当地 gtcttgact cttgctgaa tctgagcagc acattgcaag 200
caacccgtgc cttgatgggg ttggcatcct cctggagtg atagcaacct 250
ttgtggccac cggtggcatg aagtgtatga agtgcttggaa agacgatgag 300
gtgccagaag atgaggatgg ctgtcattgg gggcgcgata tttcttgg 350
caggtctggc tattttagtn gccacagcat ggtatggcaa tagantnntt 400
cnnnnnnntct atgaccctat gaccccgatc aatgccaggt acgaatttgg 450

tcaggctctc ttcactggct gggctgctgc ttctctctgc cttctggag 500

gtgccctact ttgctgttcc tgtccc 526

<210> 275

<211> 398

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 22, 61, 91, 144, 238-239, 262, 265-266, 271, 274

<223> unknown base

<400> 275

agagcacccgg cagatcccag tncaaagtct ttgacccttg ctgaatctga 50

gcagcacatt ncaagcaacc cttgccttg aagggtggttg ncaccccccc 100

tgggagtgaa tagcaatctt tgtggccacc gttggcatga agtntatgaa 150

tgcttggaa gacgatgagg tgcagaagat gaggatggct gtcattgggg 200

gcgcgatatt tcttttgca ggtctggcta ttttagtnnc cacagcatgg 250

tatggcaata gnatnnttcg nggnntctat gaccctatga ccccaagtcaa 300

tgccaggtac gaatttggtc aggctcttt cactggctgg gctgctgctt 350

ctctctgcct tctggaggt gcccctacttt gctgttcctg tccccgaa 398

<210> 276

<211> 495

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 39, 58, 130, 234, 314, 364, 427, 450, 461, 476

<223> unknown base

<400> 276

agcaatgcc tgcccccagt ggaggattaa ttcctatgnt ggggacaaca 50

ttgtgacngc ccaggccatg tacggggggc tgtggatgtc ctgcgtgtcg 100

cagagcacccg ggcagatcca gtgcaaagtn tttgactcct tgctgaattt 150

gagcagcaca ttgcaagcaa cccgtgcctt gatgggtggtt ggcatcttcc 200

tgggagtgtat agcaatcttt gtggccaccg tggnaatgaa gtgtatgaag 250

tgcttggaa acgatgaggt gcagaagatg aggatggctg tcattgggg 300

cgcgatattt cttnntgcag gtctggctat ttttagttgcc acagcatgg 350

atggcaatag aatngttcaa gaattttatg accctatgac cccagtcata 400

gccaggtacg aatttggtca ggctttnttc actggctggg ctgctgcttn 450

tttctgcctt ntgggagggtg ccctanttg ctgttcctgc gaacc 495

<210> 277

<211> 200

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 34, 87, 138, 147, 163, 165-166, 172

<223> unknown base

<400> 277

tcataggggg gcgcgatatt ttttcttgca ggtntggta ttttagttgc 50

cacagcatgg tatggcaata gaatcggtca agaatntat gaccctatga 100

ccccagtcaa tgccaggtac gaatttggtc aggctctntt cactggntgg 150

gctgctgctt ctntnngcct tntgggaggt gccctacttt gctgttcctg 200

<210> 278

<211> 542

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 26, 43, 55, 77, 198, 361-362, 391-392, 396

<223> unknown base

<400> 278

tccctggat ggatccgccc ccatcntcac atgcctgccc ccntggagat 50

ttacncctat gctggcgaac aacatcntga ccgcccaggc catgtacgag 100

gggctgtgga atgtcctgcg tgtcccagag caccggcag atccagtgc 150

aagtctttga ctccttgctg aatctgagca gcacattgca agcaaccntg 200

ccttgatgggt ggttggcatc ctcctggag tgatagcaat ctttgtggcc 250

accgttggca taaaatgtta tgaagtgcctt ggaagacgt gaggtgcaga 300

agatgaggat ggctgtcatt gggggcgcga tatttcttct tgcaggtctg 350

gctatTTTaa nngccacagc atggtatggc aatcagaccc nntcanaaac 400

tctatgaccc tatgacccca gtcaatgcca ggtacgaatt tggtcaggt 450

ctcttcactg gctgggctgc tgcttctctc tgccttctgg gaggtgcct 500

actttgctgt tcctgtcccc gaaaaacaac ctcttaccca cg 542

<210> 279
<211> 548
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 90, 115, 147, 228, 387
<223> unknown base

<400> 279
cggggctgca gctgttggc ttcatctcg ttcctggat ggaatcgcc 50
ccatcgtag cactgccctg ccccatggag gattactcn tatgctggcg 100
acaacatcgat gaccnccag gccatgtacg aggggctgtg gatgtcngcg 150
tgtcgcagag caccggcag atccagtgc aagtcttga ctcccttgctg 200
aatctgagca gcacattgc acaaccntg ctttgatggt gggtggcatc 250
ctcctggag tgatagcaat ctttgtggcc accgttggca tgaagtgtat 300
gaagtgcctg gaagacgatg aggtgcagaa gatgaggatg gctgtcattg 350
ggggcgcgat atttcttctt gcaggtctgg ctattnag ttgccacagc 400
atggtatggc aatagaatcg ttcaagaatt ctatgaccct atgaccggcag 450
tcaatgccag gtacgaattt ggtcaggctc tcttcactgg ctgggctgct 500
gcattctctt gccttctggg aggtgcccta ctttgctgtt cctgcgaa 548

<210> 280
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 280
cgagcgagtc atggccaacg c 21

<210> 281
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 281
gtgtcacacg tagtcttcc cgctgg 26

<210> 282
<211> 43

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 282
ctgcagctgt tgggcttcat tctcgcccttc ctggatgga tcg 43

<210> 283
<211> 2285
<212> DNA
<213> Homo sapiens

<400> 283
gcgtgccgtc agctcgccgg gcaccgcggc ctcgcccctcg ccctccgccc 50
ctgcgcctgc accgcgtaga ccgacccccc cctccagcgc gcccacccgg 100
tagaggaccc ccgcccggtc cccgaccggc ccccgccctt ttgtaaaact 150
taaagcgggc gcagcattaa cgcttccgc cccggtgacc tctcaggggt 200
ctccccgcca aaggtgctcc gccgctaagg aacatggcga aggtggagca 250
ggtcctgagc ctcgagccgc agcacgagct caaattccga ggtcccttca 300
ccgatgttgtt caccaccaac ctaaagcttgc gcaacccgac agaccgaaat 350
gtgtgtttta aggtgaagac tacagcacca cgttagtact gtgtgaggcc 400
caacagcggaa atcatcgatg cagggcgtc aattaatgtt tctgtgatgt 450

~~tacagccttt cgattatgtt cccaatgaga aaagtaaaca caagtttatgt~~ 500
gttcagtcta tgttgctcc aactgacact tcagatatgg aagcagtatgt 550
gaaggaggca aaaccggaag accttatggaa ttcaaaaactt agatgtgtgt 600
ttgaattgcc agcagagaat gataaaccac atgatgtaga aataaataaa 650
attatatcca caactgcatac aaagacagaa acaccaatag tgtctaagtc 700
tctgagttct tctttggatg acaccgaagt taagaagggtt atggaagaat 750
gtaagaggct gcaaggtgaa gttcagaggc tacgggagga gaacaagcag 800
ttcaaggaag aagatggact gcggatgagg aagacagtgc agagcaacag 850
ccccatttca gcattagcccc caactggaa ggaagaaggc ctttagcaccc 900
ggctcttggc tctgggtgtt ttgttcttta tcgttgggtt aattattggg 950
aagattgcct tgttagaggta gcatgcacag gatggtaaat tggattggtg 1000
gatccaccat atcatggat taaaatttat cataaccatg tgtaaaaaga 1050

aattaatgta tcatgacatc tcacaggctc tgcctttaaa ttaccctcc 1100
ctgcacacac atacacagat acacacacac aaataataatg taacgatctt 1150
ttagaaagtt aaaaatgtat agtaactgat tgaggggaa aaagaatgat 1200
ctttattaaat gacaaggaa accatgagta atgccacaat ggcattttgt 1250
aatgtcatt ttaaacattt gtggcctt gtacatgatg ctggattacc 1300
tctcttaaaa tgacaccctt cctcgctgt tggctggc ccttgggag 1350
ctggagccca gcatgctggg gagtgcggtc agctccacac agtagcccc 1400
acgtggccca ctccggccc aggctgctt ccgtgtcttc agttctgtcc 1450
aagccatcag ctccctggga ctgatgaaca gagtcagaag cccaaaggaa 1500
ttgcactgtg gcagcatcag acgtactcgt cataagttag aggcgtgtgt 1550
tgactgattt acccagcgct ttggaaataa atggcagtgc tttgttca 1600
taaagggacc aagctaaatt tgtattgggtt catgtatgta agtcaaactg 1650
ttattcagag atgttaatg catatthaac ttatthaatg tatttcatct 1700
catgtttct tattgtcaca agagtagt taatgctgctg tgctgctgaa 1750
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ctctggagag tctggcatg tggaggtggg gtttattggg atgctggaga 1850
agagctgccca ggaagtgttt tttctgggtc agtaaataac aactgtcata 1900

gggagggaaa ttctcagtag tgacagtcaa ctctaggtt cctttttaa 1950
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actcacactt ccagcgccca ggtccaagtc tgaggctgac ctcccccttgg 2050
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gcgagggcac cagcagttgt gggggggag caagggaaaga gagaaactct 2150
tcagcgaatc cttcttagtac tagttgagag tttgactgtg aattaatttt 2200
atgccataaa agaccaaccc agttctgttt gactatgttag catcttgaaa 2250
agaaaaattta taataaagcc cccaaattaa gaaaa 2285

<210> 284
<211> 243
<212> PRT
<213> Homo sapiens

<400> 284
Met Ala Lys Val Glu Gln Val Leu Ser Leu Glu Pro Gln His Glu

1	5	10	15
Leu Lys Phe Arg Gly Pro Phe Thr Asp Val Val Thr Thr Asn Leu			
20 25 30			
Lys Leu Gly Asn Pro Thr Asp Arg Asn Val Cys Phe Lys Val Lys			
35 40 45			
Thr Thr Ala Pro Arg Arg Tyr Cys Val Arg Pro Asn Ser Gly Ile			
50 55 60			
Ile Asp Ala Gly Ala Ser Ile Asn Val Ser Val Met Leu Gln Pro			
65 70 75			
Phe Asp Tyr Asp Pro Asn Glu Lys Ser Lys His Lys Phe Met Val			
80 85 90			
Gln Ser Met Phe Ala Pro Thr Asp Thr Ser Asp Met Glu Ala Val			
95 100 105			
Trp Lys Glu Ala Lys Pro Glu Asp Leu Met Asp Ser Lys Leu Arg			
110 115 120			
Cys Val Phe Glu Leu Pro Ala Glu Asn Asp Lys Pro His Asp Val			
125 130 135			
Glu Ile Asn Lys Ile Ile Ser Thr Thr Ala Ser Lys Thr Glu Thr			
140 145 150			
Pro Ile Val Ser Lys Ser Leu Ser Ser Leu Asp Asp Thr Glu			
155 160 165			
Val Lys Lys Val Met Glu Glu Cys Lys Arg Leu Gln Gly Glu Val			
170 175 180			
Gln Arg Leu Arg Glu Glu Asn Lys Gln Phe Lys Glu Glu Asp Gly			
185 190 195			
Leu Arg Met Arg Lys Thr Val Gln Ser Asn Ser Pro Ile Ser Ala			
200 205 210			
Leu Ala Pro Thr Gly Lys Glu Glu Gly Leu Ser Thr Arg Leu Leu			
215 220 225			
Ala Leu Val Val Leu Phe Phe Ile Val Gly Val Ile Ile Gly Lys			
230 235 240			
Ile Ala Leu			

<210> 285
<211> 418
<212> DNA
<213> Homo sapiens

<220>
<221> unsure

<222> 40, 53, 68, 119, 134, 177-178, 255
<223> unknown base

<400> 285
gtcagtcttc tagattgtcc ttatcccacc tttcaaccan tactcacatt 50
tcnagcgccc aggtccangt ctgagcctga cttccccttg gggaccttagc 100
ctggagttag gacaatggnt cgggctgcag aggnnttagaa gcgaggggcac 150
cagcagttt ggggtggggag caagggnnng aagaaactct tcagcgaatc 200
cttctagtagc tagtgagag tttgactgtg aattaatttt atgccataaaa 250
agacnaaccc agttctgttt gactatgtag catcttgaaa agaaaaatta 300
taataaagcc ccaaaattaa gaattctttt gtcattttgt cacatttgct 350
ctatgggggg aattattattt ttatcattttt tattatTTG ccatttggaaag 400
gttaacttta aaatgagc 418

<210> 286
<211> 543
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 73, 97
<223> unknown base

<400> 286
tattgtaaag gccatTTAA accattggta ggccttggta catgtatgt 50
gattacctcc ttAAatgaca ccNTTcCTcg cctgttggtg ctggccNTTg 100
gggagctgga gcccAGCAT gctggggagt gcggtcagct ccacacagta 150
gtccccacgt ggCCCACTCC cggcccAGGC tgcttccgt gtcttcagtt 200
ctgtccaAGC catcagctcc ttgggactga tgaacagagt cagaAGCCa 250
aAGGAATTGc cactgtggca gcatcagacg tactcgtcat aagtgagagg 300
cgtgtgttga ctgattgacc cagcgcttgc gaaataaaatg gcagtgcTTT 350
gttcaCTTAa agggaccaag ctaaattgtt ttggTTcatg tagtgaagtc 400
aaACTGTTAT tcagagatgt ttaatgcata tttaacttat ttaatgtatt 450
tcatctcatg ttttCTTATT gtcacaAGAG tacagttaat gctgcgtgct 500
gctgaACTCT gttgggtgaa ctggTATTGc tgctggaggg ctg 543

<210> 287
<211> 270

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 38, 64, 72, 164, 198, 200, 220, 222, 229, 242.
<223> unknown base

<400> 287
ccctgggtt tttgttcttt aattcggttgg tgtaattntt ggaaagattg 50
ctttagagg tagnatgcac cnggctggta aattggattg gtggatccac 100
catatccatg ggatttaaat ttatcataac catgtgtaaa aagaaattaa 150
tgtatgtga catntcacag gtattgcctt taaattaccc atccctgnan 200
acacatacac agatacacan anacaaatnt aatgtaacga tnttttagaa 250
agttaaaaat gtatagtaac 270

<210> 288
<211> 428
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 35, 116, 129, 197, 278, 294, 297, 349, 351
<223> unknown base

<400> 288
ggtgccat tccggccca ggctgcttc cggtnttcag ttctgtccaa 50
gccatcagct cttggact gatgaacaga gtcagaagcc caaaggaatt 100
gcactgtggc agcatnagac gtacttgtna taagtgagag gcgtgtgtt 150
actgattgac ccagcgctt gaaataaat ggcagtgcct tttcannta 200
aagggaccac gctaaattt tattggttca tgttagtgaag tcaaactgtt 250
attcagagat gttaatgca tatttaantt atttaatgta tttnatntca 300
tgtttctta ttgtcacaag agtacagtta atgctgcgtg ctgctgaant 350
ntgttgggtg aactggatt gctgctggag ggctgtggc tcctctgtct 400
ttggagagtc tggcatgtg gaggtggg 428

<210> 289
<211> 320
<212> DNA
<213> Homo sapiens

<400> 289
tgcttcgt gtctcagtt ctgtccaagc catcagctcc ttggacttg 50

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atgaacagag tcagaagccc aaaggaattt cactgtggca gcatcagacg 100  
tactcgctcat aagtgagagg cgtgtgttga ctgattgacc cagcgctttg 150  
gaaataaatg gcagtgcctt gttcacttaa agggaccaag ctaaatttgt 200  
attggttcat gttagtgaagt caaactgtta ttcagagatg tttaatgcat 250  
attnaactta tttaatgtat ttcatctcat gttttcttat tgtcacaaga 300  
gtacagttaa tgctgcgtgc 320
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<210> 290

<211> 609

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 57, 60, 186, 235, 244, 304, 339, 355, 359, 361, 387, 432, 441,
447, 481, 513, 532, 584, 598

<223> unknown base

<400> 290

aaacctttaa aagtggagg gaaaaaatq atcctttatt aatqacaagg 50

gaaaccntgn gtaatgccac aatggcata tgcataatgtc attttaaaca 100

ttqqttaggcc ttqgtacatq atqctggatt acctctctta aaatgacacc 150

cttcctcqcc tgggtgtact gaccccttggg gagctngagc ccaggatgct 200

ggggaaatccg-gt-ctgtctcca cacatgttgtc cccatgttggc ccantcccg 250

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gttttggaaa taaatggcag tgcgttgttc anttaaaggg nccaaagttaa 450

atttgtattg gttcatgtag tgaagtcaaa ntgttattca gagatgtta 500

atgcatattt aanttattta atgtatttca tntcatgttt tcttattgtc 550

acaagggtac agttaatgct gcgtgctgct gaantctgtt gggtgaantg 600

gtattgctg 609

291

<211> 493

<212> DNA

<213> Homo sapiens

<400> 291

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cacagtagtc cccacgtggc caactcccgg cccaggctgc tttccgtgtc 100
ttcagttctg tccaagccat cagtccttg ggactgtatga acagagtca 150
aagcccaaag gaattgcact gtggcagcat cagacgtact cgtcataagt 200
gagaggcgtg tggtgactga ttgacccagc gcttggaaa taaatggcag 250
tgctttgttc acttaaagg accaagctaa atttgttattg gttcatgttag 300
tgaagtcaaa ctgttattca gagatgttta atgcataattt aacttattta 350
atgtatttca tctcatgttt tcttattgtc acaagagtac agttaatgtc 400
gcgtgctgtc gaactctgtt gggtaactg gtattgctgc tggagggctg 450
tgggctcctc tgtctctgga gagtctggtc atgtggaggt ggg 493

<210> 292

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 292

gcaccacccgt aggtacttgt gtgagggc 27

<210> 293

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 293

aaccaccaga gccaaagagcc ggg 23

<210> 294

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 294

cagcggaatc atcgatgcag gggcctcaat taatgttatct gtgatgttac 50

<210> 295

<211> 2530

<212> DNA

<213> Homo sapiens

<400> 295
gcgagctccg ggtgctgtgg cccggccttg gcggggcggc ctccggctca 50
ggctggctga gaggctccca gctgcagcgt ccccgcgc tcctcgaaa 100
gctctgatct cagctgacag tgccctcgaa gaccaaacaa gcctggcagg 150
gtctcacttt gttgccagg ctggagttca gtgccatgtat catggttac 200
tgcagccttg acctcctggg ttcaagcgat cctgctgagt agctgggact 250
acaggacaaa attagaagat caaaatggaa aatatgctgc tttggttgtat 300
attttcacc cctgggtgaa ccctcattga tggatctgaa atggaatggg 350
attttatgtg gcacttgaga aaggtacccc ggattgtcag tgaaaggact 400
ttccatctca ccagccccgc atttggca gatgtaaga tgatggtaaa 450
tacagtgtgt ggcacatcgaa gccagaaaga actcccaact cccagcctt 500
ctgaattggaa ggattatctt tcctatgaga ctgtcttga gaatggcacc 550
cgaaccttaa ccagggtgaa agttcaagat ttgggtcttg agccgactca 600
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gagcgaaggg tgggagaaga agaaaaaaat ctggccgggg tcagaggatt 1000
gccgaaggga ggccttcctt tcagtgacc cgggtcaaga atacccacat 1050
tccgaagggc tgggcacgag gaggcatggg ggacgctacc ttggactatg 1100
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atagagacag aaagtacaa cacagtttgt actactctga gatggatcca 2000
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attataaaca aaactaataa ctgtttact gcttaagaa ataacaatta 2150
caatgtgtat tatttaaaaa tggagaaat agttgttct atgaaataaa 2200

cctagtttag aaataggaa gctgagacat tttaagatct caagtttta 2250
tttaactaat actcaaaata tggacttttc atgtatgcat aggaaagaca 2300
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tcttttcaa gaaagagtct ttttcctt gacaaaatcc agctttgtt 2450
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cctaaaaatg aataaaattt atgaatatga 2530

<210> 296
<211> 413
<212> PRT
<213> Homo sapiens

<400> 296
Met Glu Asn Met Leu Leu Trp Leu Ile Phe Phe Thr Pro Gly Trp
1 5 10 15

Thr Leu Ile Asp Gly Ser Glu Met Glu Trp Asp Phe Met Trp His

	20	25	30
Leu Arg Lys Val Pro Arg Ile Val Ser Glu Arg Thr Phe His Leu			
35	40	45	
Thr Ser Pro Ala Phe Glu Ala Asp Ala Lys Met Met Val Asn Thr			
50	55	60	
Val Cys Gly Ile Glu Cys Gln Lys Glu Leu Pro Thr Pro Ser Leu			
65	70	75	
Ser Glu Leu Glu Asp Tyr Leu Ser Tyr Glu Thr Val Phe Glu Asn			
80	85	90	
Gly Thr Arg Thr Leu Thr Arg Val Lys Val Gln Asp Leu Val Leu			
95	100	105	
Glu Pro Thr Gln Asn Ile Thr Thr Lys Gly Val Ser Val Arg Arg			
110	115	120	
Lys Arg Gln Val Tyr Gly Thr Asp Ser Arg Phe Ser Ile Leu Asp			
125	130	135	
Lys Arg Phe Leu Thr Asn Phe Pro Phe Ser Thr Ala Val Lys Leu			
140	145	150	
Ser Thr Gly Cys Ser Gly Ile Leu Ile Ser Pro Gln His Val Leu			
155	160	165	
Thr Ala Ala His Cys Val His Asp Gly Lys Asp Tyr Val Lys Gly			
170	175	180	
<u>Ser Lys Lys Leu Arg Val Gly Leu Leu Lys Met Arg Asn Lys Ser</u>			
185	190	195	
Gly Gly Lys Lys Arg Arg Gly Ser Lys Arg Ser Arg Arg Glu Ala			
200	205	210	
Ser Gly Gly Asp Gln Arg Glu Gly Thr Arg Glu His Leu Gln Glu			
215	220	225	
Arg Ala Lys Gly Gly Arg Arg Arg Lys Lys Ser Gly Arg Gly Gln			
230	235	240	
Arg Ile Ala Glu Gly Arg Pro Ser Phe Gln Trp Thr Arg Val Lys			
245	250	255	
Asn Thr His Ile Pro Lys Gly Trp Ala Arg Gly Gly Met Gly Asp			
260	265	270	
Ala Thr Leu Asp Tyr Asp Tyr Ala Leu Leu Glu Leu Lys Arg Ala			
275	280	285	
His Lys Lys Lys Tyr Met Glu Leu Gly Ile Ser Pro Thr Ile Lys			
290	295	300	
Lys Met Pro Gly Gly Met Ile His Phe Ser Gly Phe Asp Asn Asp			

305 310 315
Arg Ala Asp Gln Leu Val Tyr Arg Phe Cys Ser Val Ser Asp Glu
320 325 330
Ser Asn Asp Leu Leu Tyr Gln Tyr Cys Asp Ala Glu Ser Gly Ser
335 340 345
Thr Gly Ser Gly Val Tyr Leu Arg Leu Lys Asp Pro Asp Lys Lys
350 355 360
Asn Trp Lys Arg Lys Ile Ile Ala Val Tyr Ser Gly His Gln Trp
365 370 375
Val Asp Val His Gly Val Gln Lys Asp Tyr Asn Val Ala Val Arg
380 385 390
Ile Thr Pro Leu Lys Tyr Ala Gln Ile Cys Leu Trp Ile His Gly
395 400 405
Asn Asp Ala Asn Cys Ala Tyr Gly
410

<210> 297

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 297

gcatctgcag gagagagcga aggg 24

<210> 298

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 298

catcgttccc gtgaatccag aggc 24

<210> 299

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 299

gaaggggaggc cttccttca gtggaccgg gtcaagaata cccac 45

<210> 300

<211> 1869
<212> DNA
<213> Homo sapiens

<400> 300
aatgtgagag gggctgatgg aagctgata g caggactgg agtgttagca 50
ccagtactgg atgtgacagc aggca gagga gcacttagca gcttattcag 100
tgtccgattc tgattccggc aaggatccaa gcatggaatg ctgccgtcg 150
gcaactcctg gcacactgct cctcttctg gcttcctgc tcctgagttc 200
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cagaacatgc agtaatgtgg actgcccacc agaagcaggt gatttccgag 400
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gaatggctc ctgtgtctaa tgaccctgac aaccatgtt cactcaagtg 500
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tcacttataat ctggaaacca aaaccctcca gggactaaa ggtgaaaaca 850
gtctcagctc cacaggaact ttccttgg acaattctag tgtggacttc 900
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gacatccagg ggcatgtcac ttcagtggaa gagtgaaat gcatgtacac 1400
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ggctggcaca ggagtggtct ccgtgcacag tgacatgtgg ccagggcctc 1500
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tggttcaaac aagctcaaga gctagaagaa ggagctgctg tgtcagagga 1700
gccctcgtaa gttgtaaaag cacagactgt tctatattt aaactgtttt 1750
gtttaaagaa agcagtgtct cactggtgt agcttcatg gttctgaac 1800
taagtgtaat catctcacca aagcttttg gctctaaat taaagattga 1850
ttagttcaa aaaaaaaaa 1869

<210> 301
<211> 525
<212> PRT
<213> Homo sapiens

<400> 301
Met Glu Cys Cys Arg Arg Ala Thr Pro Gly Thr Leu Leu Leu Phe
1 5 10 15

Leu Ala Phe Leu Leu Leu Ser Ser Arg Thr Ala Arg Ser Glu Glu
20 25 30

Asp Arg Asp Gly Leu Trp Asp Ala Trp Gly Pro Trp Ser Glu Cys
35 40 45

Ser Arg Thr Cys Gly Gly Ala Ser Tyr Ser Leu Arg Arg Cys
50 55 60

Leu Ser Ser Lys Ser Cys Glu Gly Arg Asn Ile Arg Tyr Arg Thr
65 70 75

Cys Ser Asn Val Asp Cys Pro Pro Glu Ala Gly Asp Phe Arg Ala
80 85 90

Gln Gln Cys Ser Ala His Asn Asp Val Lys His His Gly Gln Phe
95 100 105

Tyr Glu Trp Leu Pro Val Ser Asn Asp Pro Asp Asn Pro Cys Ser
110 115 120

Leu Lys Cys Gln Ala Lys Gly Thr Thr Leu Val Val Glu Leu Ala
125 130 135

Pro Lys Val Leu Asp Gly Thr Arg Cys Tyr Thr Glu Ser Leu Asp
140 145 150

Met Cys Ile Ser Gly Leu Cys Gln Ile Val Gly Cys Asp His Gln
155 160 165

Leu Gly Ser Thr Val Lys Glu Asp Asn Cys Gly Val Cys Asn Gly
170 175 180

Asp Gly Ser Thr Cys Arg Leu Val Arg Gly Gln Tyr Lys Ser Gln
185 190 195

Leu Ser Ala Thr Lys Ser Asp Asp Thr Val Val Ala Leu Pro Tyr
200 205 210

Gly Ser Arg His Ile Arg Leu Val Leu Lys Gly Pro Asp His Leu
215 220 225

Tyr Leu Glu Thr Lys Thr Leu Gln Gly Thr Lys Gly Glu Asn Ser
230 235 240

Leu Ser Ser Thr Gly Thr Phe Leu Val Asp Asn Ser Ser Val Asp
245 250 255

Phe Gln Lys Phe Pro Asp Lys Glu Ile Leu Arg Met Ala Gly Pro
260 265 270

Leu Thr Ala Asp Phe Ile Val Lys Ile Arg Asn Ser Gly Ser Ala
275 280 285

Asp Ser Thr Val Gln Phe Ile Phe Tyr Gln Pro Ile Ile His Arg
290 295 300

Trp Arg Glu Thr Asp Phe Phe Pro Cys Ser Ala Thr Cys Gly Gly
305 310 315

Gly Tyr Gln Leu Thr Ser Ala Glu Cys Tyr Asp Leu Arg Ser Asn
320 325 330

Arg Val Val Ala Asp Gln Tyr Cys His Tyr Tyr Pro Glu Asn Ile
335 340 345

Lys Pro Lys Pro Lys Leu Gln Glu Cys Asn Leu Asp Pro Cys Pro
350 355 360

Ala Ser Asp Gly Tyr Lys Gln Ile Met Pro Tyr Asp Leu Tyr His
365 370 375

Pro Leu Pro Arg Trp Glu Ala Thr Pro Trp Thr Ala Cys Ser Ser
380 385 390

Ser Cys Gly Gly Ile Gln Ser Arg Ala Val Ser Cys Val Glu
395 400 405

Glu Asp Ile Gln Gly His Val Thr Ser Val Glu Glu Trp Lys Cys
410 415 420

Met Tyr Thr Pro Lys Met Pro Ile Ala Gln Pro Cys Asn Ile Phe
425 430 435

Asp Cys Pro Lys Trp Leu Ala Gln Glu Trp Ser Pro Cys Thr Val
440 445 450

Thr Cys Gly Gln Gly Leu Arg Tyr Arg Val Val Leu Cys Ile Asp
455 460 465

His Arg Gly Met His Thr Gly Gly Cys Ser Pro Lys Thr Lys Pro
470 475 480

His Ile Lys Glu Glu Cys Ile Val Pro Thr Pro Cys Tyr Lys Pro
485 490 495

Lys Glu Lys Leu Pro Val Glu Ala Lys Leu Pro Trp Phe Lys Gln
500 505 510

Ala Gln Glu Leu Glu Glu Gly Ala Ala Val Ser Glu Glu Pro Ser
515 520 525

<210> 302
<211> 1533
<212> DNA
<213> Homo sapiens

<400> 302
cggacgcgtg ggcggcggtc gcggaaactcc cgtggagggg ccgggtggcc 50
ctcgggcctg acagatggca gtggccactg cggcggcagt actggccgt 100
ctgggcgggg cgctgtggct ggcggcccg cggtcgtgg ggcccagggt 150
ccagcggctg cgcagaggcg gggaccccg cctcatgcac gggaaagactg 200
tgctgatcac cggggcgaac agcggcctgg gccgcgccac ggccgcccag 250
ctactgcgcc tgggagcgcg ggtgatcatg ggctgcccgg accgcgcgcg 300
cgccgaggag gcggcgggtc agctccgcg ctagctccgc caggccgcgg 350
agtgcggccc agagcctggc gtcagcgggg tggcgagct catagtcgg 400
gagctggacc tcgcctcgct ggcgtcggtg cgcgccttct gccaggaaat 450
gctccaggaa gagccttaggc tggatgtttt gatcaataac gcagggatct 500
tccagtgcggc ttacatgaag actgaagatg ggttgagat gcagttcgga 550
gtgaaccatc tggggcactt tctactcacc aatcttctcc ttggactcct 600
caaaagttca gctcccagca ggattgttgtt agtttcttcc aaactttata 650
aatacggaga catcaattttt gatgacttga acagtgaaca aagctataat 700
aaaagctttt gttatagccg gagcaaactg gctaacattc tttttaccag 750

ggaactagcc cgccgccttag aaggcacaaa tgtcaccgtc aatgtgtgc 800
atcctggtat tgtacggaca aatctgggaa ggcacataca cattccactg 850
ttggtcaaac cactttcaa tttggtgtca tgggctttt tcaaaactcc 900
agtagaagggt gcccagactt ccatttattt ggcctttca cctgaggttag 950
aaggagtgtc aggaagatac tttgggatt gttaagagga agaactgttgc 1000
cccaaagcta tggatgaatc tggtcaaga aaactctggg atatcagtga 1050
agtatggtt ggcctgctaa aataggaaca aggagtaaaa gagctgttta 1100
taaaaactgca tatcagttat atctgtgatc aggaatggtg tggattgaga 1150
acttgttact tgaagaaaaa gaattttgat attgaatag cctgctaaga 1200
ggtacatgtg ggtatttgg agttactgaa aaatttttt tggataaga 1250
gaatttcagc aaagatgttt taaatatata tagtaagtat aatgaataat 1300
aagtacaatg aaaaatacaa ttatattgtaa aattataac tggcaagca 1350
tggatgacat attaatattt gtcagaatta agtgactcaa agtgctatcg 1400
agaggtttt caagtatctt tgagttcat ggccaaagtg ttaacttagtt 1450
ttactacaat gtttgggttt tgggtggaaa ttatctgcct ggtgtgtca 1500
cacaagtctt acttggata aatttactgg tac 1533

<210> 303

<211> 336

<212> PRT

<213> Homo sapiens

<400> 303

Met Ala Val Ala Thr Ala Ala Ala Val Leu Ala Ala Leu Gly Gly
1 5 10 15

Ala Leu Trp Leu Ala Ala Arg Arg Phe Val Gly Pro Arg Val Gln
20 25 30

Arg Leu Arg Arg Gly Gly Asp Pro Gly Leu Met His Gly Lys Thr
35 40 45

Val Leu Ile Thr Gly Ala Asn Ser Gly Leu Gly Arg Ala Thr Ala
50 55 60

Ala Glu Leu Leu Arg Leu Gly Ala Arg Val Ile Met Gly Cys Arg
65 70 75

Asp Arg Ala Arg Ala Glu Glu Ala Ala Gly Gln Leu Arg Arg Glu
80 85 90

Leu Arg Gln Ala Ala Glu Cys Gly Pro Glu Pro Gly Val Ser Gly

95	100	105
Val Gly Glu Leu Ile Val Arg Glu Leu Asp Leu Ala Ser Leu Arg		
110	115	120
Ser Val Arg Ala Phe Cys Gln Glu Met Leu Gln Glu Glu Pro Arg		
125	130	135
Leu Asp Val Leu Ile Asn Asn Ala Gly Ile Phe Gln Cys Pro Tyr		
140	145	150
Met Lys Thr Glu Asp Gly Phe Glu Met Gln Phe Gly Val Asn His		
155	160	165
Leu Gly His Phe Leu Leu Thr Asn Leu Leu Leu Gly Leu Leu Lys		
170	175	180
Ser Ser Ala Pro Ser Arg Ile Val Val Val Ser Ser Lys Leu Tyr		
185	190	195
Lys Tyr Gly Asp Ile Asn Phe Asp Asp Leu Asn Ser Glu Gln Ser		
200	205	210
Tyr Asn Lys Ser Phe Cys Tyr Ser Arg Ser Lys Leu Ala Asn Ile		
215	220	225
Leu Phe Thr Arg Glu Leu Ala Arg Arg Leu Glu Gly Thr Asn Val		
230	235	240
Thr Val Asn Val Leu His Pro Gly Ile Val Arg Thr Asn Leu Gly		
245	250	255
Arg His Ile His Ile Pro Leu Leu Val Lys Pro Leu Phe Asn Leu		
260	265	270
Val Ser Trp Ala Phe Phe Lys Thr Pro Val Glu Gly Ala Gln Thr		
275	280	285
Ser Ile Tyr Leu Ala Ser Ser Pro Glu Val Glu Gly Val Ser Gly		
290	295	300
Arg Tyr Phe Gly Asp Cys Lys Glu Glu Leu Leu Pro Lys Ala		
305	310	315
Met Asp Glu Ser Val Ala Arg Lys Leu Trp Asp Ile Ser Glu Val		
320	325	330
Met Val Gly Leu Leu Lys		
335		

<210> 304

<211> 521

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 20, 34, 62, 87, 221, 229

<223> unknown base

<400> 304

ggggattgt aagaggaagn actgtgccca aagntatgga tgaatctgtt 50
gcaagaaaat tntggatat cagtgaagt atggtngcc tgctaaaata 100
ggaacaagga gtaaaagagc tgtttataaa actgcataatc agttatatct 150
gtgatcagga atggtgtgga ttgagaactt gttacttgaa gaaaaagaat 200
tttcatattt gaatagcctg ntaagaggna catgtggta ttttgaggtt 250
actgaaaaat tattttggg ataagagaat ttcagcaaag atgtttaaa 300
tatataatg aagtataatg aataataatg acaatgaaaa atacaattat 350
attgtaaaat tataactggg caagcatgga tgacatatta atatitgtca 400
gaatattatg actcaaagtg ctatcgagag gttttcaag tatcttgag 450
tttcatggcc aaagtgttaa ctagtttac tacaatgtt ggtgttg 500
tggaaattat ctgcctggct t 521

<210> 305

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 305

ccaggaaatg ctccaggaag agcc 24

<210> 306

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 306

gcccatgaca ccaaattgaa gagtgg 26

<210> 307

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 307

aacgcaggg a tttccagt cc ttacatg a a gactgaag at ggg 45

<210> 308

<211> 1523

<212> DNA

<213> Homo sapiens

<400> 308

gagaggacga ggtgccgctg cctggagaat cctccgctgc cg tcggctcc 50

cggagccca g cccttccta acccaaccca acctagccca gtcccagccg 100

ccagcgcctg tccctgtcac ggaccccagc gttaccatgc atccctgcgt 150

cttcctatcc ttaccgcacc tcagatgctc cttctgctc ctggtaactt 200

gggttttac tcctgtaaca actgaaataa caagtctgc tacagagaat 250

atagatgaaa tttaaacaa tgctgatgtt gcttagtaa atttttatgc 300

tgactggtgt cgtttcagtc agatgttgca tccaattttt gaggaagctt 350

ccgatgtcat taaggaagaa ttcccaa atg aaaatcaagt agt gtttgc 400

agagttgatt gtgatcagca ctctgacata gcccagagat acaggataag 450

caaataaccca accctcaa at tttcgtaa tggatgatg atgaagagag 500

aatacagggg tcagcgatca gtgaaagcat tggcagatta catcaggcaa 550

aaaaaaaaatg accccattca agaaattcgg gacttagcag aaatcaccac 600

tcttgatcgc agcaaaagaa atatcattgg atattttag caaaaggact 650

cggacaacta tagatttt gaacgagtag cgaatatttt gcatgatgac 700

tgtgccttc ttctgcatt tggatgtt tcaaaaccgg aaagatata 750

tggcacaac ataatctaca aaccaccagg gcattctgct ccggatatgg 800

tgtacttggg agctatgaca aat tttgatg tgacttacaa ttggattcaa 850

gataaatgtt ttccttctgt ccgagaaata acattgaaa atggagagga 900

attgacagaa gaaggactgc ct tttctcat actcttcac atgaaagaag 950

atacagaaag ttttagaaata ttccagaatg aagtagctcg gcaattaata 1000

agtaaaaaag gtacaataaa ct ttttacat gccgattgtg acaaatttag 1050

acatcctctt ctgcacatac agaaaactcc agcagattgt cctgtaatcg 1100

ctattgacag ct ttaggcat atgtatgtgt ttggagactt caaagatgta 1150

ttaattcctg gaaaactcaa gcaattcgta ttgacttac attctggaaa 1200

actgcacaga gaattccatc atggacctga cccactgat acagccccag 1250

gagagcaagc ccaagatgta gcaaggcagtc cacctgagag ctccttccag 1300
aaactagcac ccagtgaata taggtatact ctattgaggg atcgagatga 1350
gctttaaaaa cttgaaaaac agtttgtaag ccttcaaca gcagcatcaa 1400
cctacgtggt ggaaatagta aacctataatt ttcataattc tatgtgtatt 1450
tttatttga ataaacagaa agaaatttaa aaaaaaaaaa aaaaaaaaaa 1500
aaaaaaaaaa aaaaaaaaaa aaa 1523

<210> 309

<211> 406

<212> PRT

<213> Homo sapiens

<400> 309

Met	His	Pro	Ala	Val	Phe	Leu	Ser	Leu	Pro	Asp	Leu	Arg	Cys	Ser
1				5				10					15	

Leu	Leu	Leu	Leu	Val	Thr	Trp	Val	Phe	Thr	Pro	Val	Thr	Thr	Glu
				20				25					30	

Ile	Thr	Ser	Leu	Ala	Thr	Glu	Asn	Ile	Asp	Glu	Ile	Leu	Asn	Asn
				35				40					45	

Ala	Asp	Val	Ala	Leu	Val	Asn	Phe	Tyr	Ala	Asp	Trp	Cys	Arg	Phe
				50				55					60	

Ser	Gln	Met	Leu	His	Pro	Ile	Phe	Glu	Glu	Ala	Ser	Asp	Val	Ile
				65				70					75	

Lys	Glu	Glu	Phe	Pro	Asn	Glu	Asn	Gln	Val	Val	Phe	Ala	Arg	Val
				80				85					90	

Asp	Cys	Asp	Gln	His	Ser	Asp	Ile	Ala	Gln	Arg	Tyr	Arg	Ile	Ser
				95				100					105	

Lys	Tyr	Pro	Thr	Leu	Lys	Leu	Phe	Arg	Asn	Gly	Met	Met	Met	Lys
				110				115					120	

Arg	Glu	Tyr	Arg	Gly	Gln	Arg	Ser	Val	Lys	Ala	Leu	Ala	Asp	Tyr
				125				130					135	

Ile	Arg	Gln	Gln	Lys	Ser	Asp	Pro	Ile	Gln	Glu	Ile	Arg	Asp	Leu
				140				145					150	

Ala	Glu	Ile	Thr	Thr	Leu	Asp	Arg	Ser	Lys	Arg	Asn	Ile	Ile	Gly
				155				160					165	

Tyr	Phe	Glu	Gln	Lys	Asp	Ser	Asp	Asn	Tyr	Arg	Val	Phe	Glu	Arg
				170				175					180	

Val	Ala	Asn	Ile	Leu	His	Asp	Asp	Cys	Ala	Phe	Leu	Ser	Ala	Phe
				185				190					195	

<210> 310
<211> 182
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 36, 48
<223> unknown base

<400> 310

attaaggaag aatttccaaa tgaaaatcaa gtagtnttg ccagagtng 50
ttgtgatcag cactctgaca tagcccagag atacaggata agcaaatacc 100
caaccctcaa attgttcgt aatggatga tcatgaagag agaatacagg 150
ggtcagcgat cagtgaaagc attggcagat ta 182

<210> 311
<211> 598
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 38, 59, 140, 169, 174, 183, 282-283, 294-295, 319, 396
<223> unknown base

<400> 311
agaggcctct ctggaagttg tccccgggtgt tcgcgcngg agcccggtc 50
gagaggacna ggtgccgctg cctggagaat cctccgctgc cgtcggctcc 100
cggagcccaag cccttccta acccaaccca acctagccn gtcccagccg 150
ccagcgccctg tccctgtcnc ggancggcgc gtnaccatgc atcctgccgt 200
cttccttatcc ttaccgcacc tcagatgctc ccttctgctc ctggtaactt 250
gggttttac tcctgtaaca actgaaataa cnngtctga tacnnagaat 300
atagatgaaa ttttaaacna tgctgatgtg gcttttagtca atttttatgc 350

tgactggtgt cgtttcagtc agatgtggca tccaaattttt gaggangctt 400
ccgatgtcat taaggaagaa tttccaaatg aaaatcaagt agtgtttgcc 450
agagttgatt gtgatcagca ctctgacata gcccagagat acaggataag 500
caaataccca accctcaaat tgttcgtaa tggatgatg atgaagagag 550
aatacagggg tcagcgatca gtgaaagcat tggcagatta catcaggc 598

<210> 312
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 312
tgagaggcct ctctggaagt tg 22

<210> 313
<211> 19
<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 313
gtcagcgatc agtgaaagc 19

<210> 314

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 314
ccagaatgaa gtagctcgac 20

<210> 315

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 315
ccgactcaaa atgcattgtc 20

<210> 316

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 316
catttggcag gaattgtcc 19

<210> 317

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 317
ggtgctatacg gccaaagg 18

<210> 318

<211> 24

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 318
ctgtatctct gggctatgtc agag 24

<210> 319
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 319
ctacatataa tggcacatgt cagcc 25

<210> 320
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 320
cgcttccta tccttacccg acctcagatg ctcccattctg ctcctg 46

<210> 321
<211> 1333
<212> DNA
<213> Homo sapiens

<400> 321
gcccacgcgt ccgatggcgt tcacgttcgc ggcattctgc tacatgctgg 50
cgctgctgct cactgcccg ctcatcttct tcgcatttg gcacattata 100
gcatttgatg agctgaagac tgattacaag aatcctatacg accagtgtaa 150
taccctgaat cccattgtac tcccagatgt cctcatccac gctttttct 200
gtgtcatgtt tctttgtgca gcagagtggc ttacactggg tctcaatatg 250
cccattttgg catatcatat ttggaggat atgagtagac cagtgtatgg 300
tggcccaagga ctctatgacc ctacaaccat catgaatgca gatattcttag 350
catattgtca gaaggaagga tggcataat tagctttta tcttcttagca 400
ttttttact acctatatgg catgatctat gttttggta gctcttagaa 450
caacacacag aagaatttgtt ccagttaaat gcatgcaaaa agccaccaaa 500
tgaagggtt ctatccagca agatccgtc caagagtagc ctgtggaatc 550
tgtatcaqttt cttaaaaaaa tgactcccta ttttttaat gtttccacat 600

tttgcttgt ggaaagactg tttcatatg ttatactcag ataaagattt 650
taaatggtat tacgtataaa ttaatataaa atgattacct ctggtgttga 700
caggttgaa cttgcacttc ttaaggaaca gccataatcc tctgaatgat 750
gcattaatta ctgactgtcc tagtacattt gaagctttt tttataggaa 800
ctttagggc tcatttttgtt ttcattgaaa cagtatctaa ttataaatta 850
gctgttagata tcaggtgctt ctgatgaagt gaaaatgtat atctgactag 900
tggaaactt catgggttcc ctcatctgtc atgtcgatga ttatatatgg 950
atacatttac aaaaataaaaa agcgggaatt ttcccttcgc ttgaatatta 1000
tccctgtata ttgcatgaat gagagatttc ccataattcc atcagagtaa 1050
taaatataact tgcttaatt ctaagcata agtaaacatg atataaaaaat 1100
atatgctgaa ttacttgtga agaatgcatt taaagctatt ttaaatgtgt 1150
ttttatgtt aagacattac ttattaagaa attggttatt atgcttactg 1200
ttctaattctg gtggtaaagg tattcttaag aatttgcagg tactacagat 1250
ttcaaaact gaatgagaga aaattgtata accatcctgc tgttccttta 1300

gtgcaataaca ataaaactct gaaattaaga ctc 1333

<210> 322

<211> 144

<212> PRT

<213> Homo sapiens

<400> 322

Met	Ala	Phe	Thr	Phe	Ala	Ala	Phe	Cys	Tyr	Met	Leu	Ala	Leu	Leu
1				5					10					15

Leu	Thr	Ala	Ala	Leu	Ile	Phe	Phe	Ala	Ile	Trp	His	Ile	Ile	Ala
				20					25					30

Phe	Asp	Glu	Leu	Lys	Thr	Asp	Tyr	Lys	Asn	Pro	Ile	Asp	Gln	Cys
				35				40						45

Asn	Thr	Leu	Asn	Pro	Leu	Val	Leu	Pro	Glu	Tyr	Leu	Ile	His	Ala
				50				55						60

Phe	Phe	Cys	Val	Met	Phe	Leu	Cys	Ala	Ala	Glu	Trp	Leu	Thr	Leu
				65					70					75

Gly	Leu	Asn	Met	Pro	Leu	Leu	Ala	Tyr	His	Ile	Trp	Arg	Tyr	Met
				80				85						90

Ser	Arg	Pro	Val	Met	Ser	Gly	Pro	Gly	Leu	Tyr	Asp	Pro	Thr	Thr
					95				100					105

Ile Met Asn Ala Asp Ile Leu Ala Tyr Cys Gln Lys Glu Gly Trp
110 115 120

Cys Lys Leu Ala Phe Tyr Leu Leu Ala Phe Phe Tyr Tyr Leu Tyr
125 130 135

Gly Met Ile Tyr Val Leu Val Ser Ser
140

<210> 323

<211> 477

<212> DNA

<213> Homo sapiens

<400> 323

attatacgat ttgatgagct gaagactgtat tacaagatcc tatagaccag 50

tgtataccct tgaatccccct tgtactccca gagtacctca tccacgcttt 100

cttctgtgtc atgtttcttt gtgcagcaga gtggcttaca ctgggtctca 150

atatgccctt cttggcatat catatttgga ggttatatgag tagaccagt 200

atgagtgccc caggactcta tgaccctaca accatcatga atgcagatat 250

tcttagcatat tgtcagaagg aaggatggtg caaatttagct ttttatcttc 300

tagcattttt ttactaccta tatggcatga tctatgtttt ggtgagctct 350

tagaacaaca cacagaagaa ttggccagt taagtgcattt caaaaagcca 400

ccaaatgaag ggattctatac cagcaagatc ctgtccaaaga gtagcctgtg 450

gaatctgatc agttacttta aaaaatg 477

<210> 324

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 324

tgtaaaaacga cggccagttt aatagacacctg caatttattaa tct 43

<210> 325

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 325

caggaaacag ctatgaccac ctgcacacacct gcaaattccat t 41

<210> 326
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 326
gtgcagcaga gtggcttaca 20

<210> 327
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 327
actggaccaa ttcttctgtg 20

<210> 328
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 328
gatattctag catattgtca gaaggaagga tggtgcaaat tagct 45

<210> 329
<211> 1174
<212> DNA
<213> Homo sapiens

<400> 329
cgAACGCGTG ggggaaaccc ttccgagaaaa acagcaacaa gctgagctgc 50
tgtgacagag gggacaacaaga tggcggcgcc gaaggggagc ctctgggtga 100
ggacccaact ggggctcccg ccgctgctgc tgctgaccat ggccttggcc 150
ggagggttcgg ggaccgcttc ggctgaagca tttgactcgg tcttgggtga 200
tacggcgtct tgccaccggg cctgtcagtt gacctacccc ttgcacacacct 250
accctaagga agaggagttg tacgcatgtc agagaggttg caggctgttt 300
tcaatttgtc agtttgtgga tcatggaaatt gacttaaatc gaactaaattt 350
ggaatgtgaa tctgcatgtc cagaagcata ttcccaatct gatgagcaat 400
atgcttgcca tcttgggtgc cagaatcagc tgccattcgc tgaactgaga 450

caagaacaac ttatgtccct gatgccaaaa atgcacctac tcttcctct 500
aactctggtg aggtcattct ggagtgacat gatggactcc gcacagagct 550
tcataacctc ttcatggact ttttatcttc aagccatga cggaaaaata 600
gttatattcc agtctaagcc agaaatccag tacgcaccac atttggagca 650
ggagcctaca aatttgagag aatcatctct aagcaaaatg tcctatctgc 700
aaatgagaaa ttcacaagcg cacaggaatt ttcttgaaga tggagaaaatg 750
gatggcttt taagatgcct ctctcttaac tctgggtgga ttttaactac 800
aactcttgc ctctcggtga tggatttgc ttggatttgc tggcaactg 850
ttgctacagc tgtggagcag tatgttccct ctgagaagct gagtatctat 900
ggtgacttgg agtttatgaa tgaacaaaag ctaaacagat atccagcttc 950
ttctcttgc gttgttagat ctaaaactga agatcatgaa gaagcaggc 1000
ctctacctac aaaagtgaat cttgctcatt ctgaaattta agcattttc 1050
ttttaaaaga caagtgtaat agacatctaa aattccactc ctcatalogc 1100
ttttaaaatg gtttcatgg atataggcct taagaaatca ctataaaatg 1150
caaataaaatg tactcaaatac tgtg 1174

<210> 330

<211> 323

<212> PRT

<213> Homo sapiens

<400> 330

Met	Ala	Ala	Pro	Lys	Gly	Ser	Leu	Trp	Val	Arg	Thr	Gln	Leu	Gly
1									10					15

Leu	Pro	Pro	Leu	Leu	Leu	Leu	Thr	Met	Ala	Leu	Ala	Gly	Gly	Ser
								20						30

Gly	Thr	Ala	Ser	Ala	Glu	Ala	Phe	Asp	Ser	Val	Leu	Gly	Asp	Thr
									35					45

Ala	Ser	Cys	His	Arg	Ala	Cys	Gln	Leu	Thr	Tyr	Pro	Leu	His	Thr
									50					60

Tyr	Pro	Lys	Glu	Glu	Glu	Leu	Tyr	Ala	Cys	Gln	Arg	Gly	Cys	Arg
									65					75

Leu	Phe	Ser	Ile	Cys	Gln	Phe	Val	Asp	Asp	Gly	Ile	Asp	Leu	Asn
									80					90

Arg	Thr	Lys	Leu	Glu	Cys	Glu	Ser	Ala	Cys	Thr	Glu	Ala	Tyr	Ser
									95					105

Gln	Ser	Asp	Glu	Gln	Tyr	Ala	Cys	His	Leu	Gly	Cys	Gln	Asn	Gln
110									115					120
Leu	Pro	Phe	Ala	Glu	Leu	Arg	Gln	Glu	Gln	Leu	Met	Ser	Leu	Met
125									130					135
Pro	Lys	Met	His	Leu	Leu	Phe	Pro	Leu	Thr	Leu	Val	Arg	Ser	Phe
140									145					150
Trp	Ser	Asp	Met	Met	Asp	Ser	Ala	Gln	Ser	Phe	Ile	Thr	Ser	Ser
155									160					165
Trp	Thr	Phe	Tyr	Leu	Gln	Ala	Asp	Asp	Gly	Lys	Ile	Val	Ile	Phe
170									175					180
Gln	Ser	Lys	Pro	Glu	Ile	Gln	Tyr	Ala	Pro	His	Leu	Glu	Gln	Glu
185									190					195
Pro	Thr	Asn	Leu	Arg	Glu	Ser	Ser	Leu	Ser	Lys	Met	Ser	Tyr	Leu
200									205					210
Gln	Met	Arg	Asn	Ser	Gln	Ala	His	Arg	Asn	Phe	Leu	Glu	Asp	Gly
215									220					225
Glu	Ser	Asp	Gly	Phe	Leu	Arg	Cys	Leu	Ser	Leu	Asn	Ser	Gly	Trp
230									235					240
Ile	Leu	Thr	Thr	Thr	Leu	Val	Leu	Ser	Val	Met	Val	Leu	Leu	Trp
245									250					255
Ile	Cys	Cys	Ala	Thr	Val	Ala	Thr	Ala	Val	Glu	Gln	Tyr	Val	Pro
260									265					270

Ser	Glu	Lys	Leu	Ser	Ile	Tyr	Gly	Asp	Leu	Glu	Phe	Met	Asn	Glu
275									280					285

Gln	Lys	Leu	Asn	Arg	Tyr	Pro	Ala	Ser	Ser	Leu	Val	Val	Val	Arg
290									295					300

Ser	Lys	Thr	Glu	Asp	His	Glu	Glu	Ala	Gly	Pro	Leu	Pro	Thr	Lys
305									310					315

Val	Asn	Leu	Ala	His	Ser	Glu	Ile							
320														

<210> 331

<211> 350

<212> DNA

<213> Homo sapiens

<400> 331

ttgggtgata cggcgtcttg ccaccgggcc tgcgttgtga cctacccctt 50

gcacacacctac cctaaggaag aggagtgtta cgcatgtcag agaggttgca 100

ggctgttttc aatttgtcag ttgtggatg atgaaattga cttaaatcga 150

actaaattgg aatgtgaatc tgcataatc gaagcatatt cccaatctga 200
tgagcaatat gcttgcacatc ttggttgcca gaatcagctg ccattcgctg 250
aactgagaca agaacaactt atgtccctga tgccaaaaat gcacctactc 300
tttcctctaa ctctggtgag gtcattctgg agtgacatga tggactccgc 350

<210> 332
<211> 562
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 47
<223> unknown base

<400> 332
cacactggcc ggatctttta gagtccttg accttgacca agggtcngga 50
aaacagcaac aagctgagct gctgtgacag agggacaacaag atggcggcgc 100
cgaagggagc ctttgggtga ggacccaact ggggctcccgg ccgctgctgc 150
tgctgaccat ggccttggcc ggagggttcgg ggaccgcttc ggctgaagca 200
tttgactcgg tcttgggtga tacggcgctt tgccaccggg cctgtcagtt 250
gacctacccc ttgcacacacct accctaagga agaggagttg tacgcatgtc 300
agagaggttgcaggctgttt tcaatttgc agtttgtgaa tgatgaaatt 350

gacttaaatc gaactaaatt ggaatgtgaa tctgcattgtc cagaagcata 400
ttcccaatct gatgagcaat atgcttgcac tcttgggtgc cagaatcagc 450
tgccattcgc tgaactgaga caagaacaac ttatgtccct gatgccaaaa 500
atgcacacctac tctttcctt aactctggtg aggtcattct ggagtgacat 550
gatggactcc gc 562

<210> 333
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 333
acaagctgag ctgctgtgac ag 22

<210> 334
<211> 22

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 334
tgattctggc aaccaagatg gc 22

<210> 335
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 335
atggccttgg ccggagggttc ggggaccgct tcggctgaag 40

<210> 336
<211> 1885
<212> DNA
<213> Homo sapiens

<400> 336
gcgagggtggc gatcgctgag aggcaggagg gccgaggcgg gcctgggagg 50
cggcccccggag gtggggcgcc gctggggccg gcccccacgg gtttcatctg 100
agggcgcacg gccccgcacc gagcgtgcgg actggcctcc caagcgtggg 150
gcgacaagct gccggagctg caatggccg cggctggga ttcttgttg 200
gcctcctggg cgccgtgtgg ctgctcagct cgggccacgg agaggagcag 250
ccccccggaga cagcggcaca gaggtgcttc tgccaggtta gtggttactt 300
ggatgattgt acctgtgatg ttgaaaccat tgatagattt aataactaca 350
ggctttccc aagactacaa aaacttcttg aaagtgacta cttaggtat 400
tacaaggtaa acctgaagag gccgtgtcct ttcttggatg acatcagcca 450
gtgtggaaga agggactgtg ctgtcaaacc atgtcaatct gatgaagttc 500
ctgatggaat taaatctgcg agctacaagt attctgaaga agccaataat 550
ctcattgaag aatgtgaaca agctgaacga cttggagcag tggatgaatc 600
tctgagtgag gaaacacaga aggctgttct tcagtggacc aagcatgatg 650
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gaatatgttag atttgcttct taatcctgag cgctacactg gttacaaggg 750
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agccacagac aattaaaaga cctttaaatc ctttggcttc tggcaagg 850
acaagtgaag agaacacttt ttacagttgg ctagaaggc tctgtgtaga 900
aaaaagagca ttctacagac ttatatctgg cctacatgca agcattaatg 950
tgcatttgag tgcaagatat ctttacaag agacctggtt agaaaagaaa 1000
tggggacaca acattacaga atttcaacag cgatttgatg gaattttgac 1050
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tagaactaag ggcttatcc aaagtgttac cattcttcga gcgcCcagat 1150
tttcaactct ttactggaaa taaaattcag gatgagggaa acaaaatgtt 1200
acttctggaa atacttcatg aaatcaagt catttttttgcattttgatg 1250
agaattcatt ttttgctgg gataaaaaaag aagcacacaa actaaaggag 1300
gactttcgac tgcatTTTaaatattca agaattatgg attgtgttgg 1350
ttgttttaaa tgcgtctgt gggaaagct tcagactcag ggtttggca 1400
ctgctctgaa gatcttattt tctgagaaat tgatagcaaa tatgccagaa 1450
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attcaacgca tttggaagaa tttctacaag tgtgaaagaa ttagaaaact 1550
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ctgtttctgg acaatggagg cgaaagagtg gaatttcatt caaaggcata 1650
atagcaatga cagtcttaag ccaaacattt tatataaagt tgctttgtt 1700
aaggagaatt atattgtttt aagtaaacac atttttaaaa attgtgttaa 1750
gtctatgtat aatactactg ttagtAAAAG taatacttta ataatgtggt 1800
acaaatttta aagtttaata ttgaataaaa ggaggattat caaattaaaa 1850
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 1885

<210> 337
<211> 468
<212> PRT
<213> Homo sapiens

<400> 337
Met Gly Arg Gly Trp Gly Phe Leu Phe Gly Leu Leu Gly Ala Val
1 5 10 15
Trp Leu Leu Ser Ser Gly His Gly Glu Glu Gln Pro Pro Glu Thr
20 25 30

Ala Ala Gln Arg Cys Phe Cys Gln Val Ser Gly Tyr Leu Asp Asp
35 40 45

Cys Thr Cys Asp Val Glu Thr Ile Asp Arg Phe Asn Asn Tyr Arg
50 55 60

Leu Phe Pro Arg Leu Gln Lys Leu Leu Glu Ser Asp Tyr Phe Arg
65 70 75

Tyr Tyr Lys Val Asn Leu Lys Arg Pro Cys Pro Phe Trp Asn Asp
80 85 90

Ile Ser Gln Cys Gly Arg Arg Asp Cys Ala Val Lys Pro Cys Gln
95 100 105

Ser Asp Glu Val Pro Asp Gly Ile Lys Ser Ala Ser Tyr Lys Tyr
110 115 120

Ser Glu Glu Ala Asn Asn Leu Ile Glu Glu Cys Glu Gln Ala Glu
125 130 135

Arg Leu Gly Ala Val Asp Glu Ser Leu Ser Glu Glu Thr Gln Lys
140 145 150

Ala Val Leu Gln Trp Thr Lys His Asp Asp Ser Ser Asp Asn Phe
155 160 165

Cys Glu Ala Asp Asp Ile Gln Ser Pro Glu Ala Glu Tyr Val Asp
170 175 180

Leu Leu Leu Asn Pro Glu Arg Tyr Thr Gly Tyr Lys Gly Pro Asp
185 190 195

Ala Trp Lys Ile Trp Asn Val Ile Tyr Glu Glu Asn Cys Phe Lys
200 205 210

Pro Gln Thr Ile Lys Arg Pro Leu Asn Pro Leu Ala Ser Gly Gln
215 220 225

Gly Thr Ser Glu Glu Asn Thr Phe Tyr Ser Trp Leu Glu Gly Leu
230 235 240

Cys Val Glu Lys Arg Ala Phe Tyr Arg Leu Ile Ser Gly Leu His
245 250 255

Ala Ser Ile Asn Val His Leu Ser Ala Arg Tyr Leu Leu Gln Glu
260 265 270

Thr Trp Leu Glu Lys Lys Trp Gly His Asn Ile Thr Glu Phe Gln
275 280 285

Gln Arg Phe Asp Gly Ile Leu Thr Glu Gly Glu Gly Pro Arg Arg
290 295 300

Leu Lys Asn Leu Tyr Phe Leu Tyr Leu Ile Glu Leu Arg Ala Leu
305 310 315

Ser Lys Val Leu Pro Phe Phe Glu Arg Pro Asp Phe Gln Leu Phe
320 325 330

Thr Gly Asn Lys Ile Gln Asp Glu Glu Asn Lys Met Leu Leu Leu
335 340 345

Glu Ile Leu His Glu Ile Lys Ser Phe Pro Leu His Phe Asp Glu
350 355 360

Asn Ser Phe Phe Ala Gly Asp Lys Lys Glu Ala His Lys Leu Lys
365 370 375

Glu Asp Phe Arg Leu His Phe Arg Asn Ile Ser Arg Ile Met Asp
380 385 390

Cys Val Gly Cys Phe Lys Cys Arg Leu Trp Gly Lys Leu Gln Thr
395 400 405

Gln Gly Leu Gly Thr Ala Leu Lys Ile Leu Phe Ser Glu Lys Leu
410 415 420

Ile Ala Asn Met Pro Glu Ser Gly Pro Ser Tyr Glu Phe His Leu
425 430 435

Thr Arg Gln Glu Ile Val Ser Leu Phe Asn Ala Phe Gly Arg Ile
440 445 450

Ser Thr Ser Val Lys Glu Leu Glu Asn Phe Arg Asn Leu Leu Gln
455 460 465

Asn Ile His

<210> 338
<211> 507
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 101, 263, 376, 397, 426
<223> unknown base

<400> 338
gctggaaata tggatgtcat ctacgagaaa ctgttttaag ccacagacaa 50
ttaaaagacc tttaaatcct ttggcttcgt gtcaaggac aagtgaagag 100
nacactttt acagttggct agaaggtctc tgtgttagaaa aaagagcatt 150
ctacagactt atatctggcc tacatgcaag cattaatgtc catttgagtg 200
caagatatct ttacaagag acctggtagaaa aaaagaaatg gggacacaaac 250
attacagaat tttaacacgcg atttgatgga attttgactg aaggagaagg 300
tccaagaagg cttaagaact tgcattttct ctacttaata gaactaaggg 350

ctttatccaa agtgttacca ttcttngagc gcccagattt tcaactnttt 400
actggaaata aaattcagga tgaggnaac aaaatgttac ttttgaaat 450
acttcatgaa atcaagtcat ttcccttgca ttttgatgag aattcatttt 500
tttgctg 507

<210> 339
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 339
aagctgccgg agctgcaatg 20

<210> 340
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 340
ttgcttctta atcctgagcg c 21

<210> 341
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 341
aaaggaggac ttgcactgc 20

<210> 342
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 342
agagattcat ccactgctcc aagtcg 26

<210> 343
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 343
tgtccagaaa caggcacata tcagc 25

<210> 344
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 344
agacagcggc acagaggtgc ttctgccagg ttagtggta cttggatgat 50

<210> 345
<211> 1486
<212> DNA
<213> Homo sapiens

<400> 345
cggacgcgtg ggcggacgacg tggcgacg cgtgggtgg gagggggcag 50
gatgggaggg aaagtgaaga aaacagaaaa ggagagggac agaggccaga 100
ggacttctca tactggacag aaaccgatca ggcatttgcac tccccttcgt 150
cactcacctg ttcttgcccc tggtggtcct gacaggtctc tgctccccct 200
ttaaccttggaa tgaacatcac ccacgcctat tcccaaggcc accagaagct 250

gaatttggat acagtgtctt acaacatgtt ggggggtggac agcgatggat 300
gctgggtggc gccccctggg atgggccttc aggcgaccgg aggggggacg 350
tttatcgctg ccctgttaggg gggggccaca atgcggcatg tgccaaggc 400
cacttaggtg actaccaact gggaaattca tctcatcctg ctgtgaatat 450
gcacctgggg atgtctctgt tagagacaga tggtgatggg ggattcatgg 500
tgagctaagg agagggtggt ggcagtgtct ctgaagggtcc ataaaagaaa 550
aaagagaagt gtggtaaggg aaaatggtct gtgtggaggg gtcaaggagt 600
taaaaaccct agaaagcaaa agtaggtaa tgtcagggag tagtcttcat 650
gcctccttca actgggagca tggctgagg gtgcctccc aagcctggaa 700
gtaactattt ccccatccc caggcctgtg cccctctctg gtctcgtgt 750
tgtggcagct ctgttccag ttctggata tgtgcccgtg tggatgcttc 800
attccagcct cagggaaagcc tggcacccac tgcccaacgt gagccagagg 850

aaggctgagt acttggttcc cagaaggaga tactgggtgg gaaaaagatg 900
ggccaaagcg gtatgatgcc tggcaaaggc cctgcattgc tatcctcatt 950
gctaccta at gtgcttgc aaagctccatg tttccataaca gattcagact 1000
cctggccagg tgtggtggcc cacacctgta attcttagcac tttgggaggc 1050
caagggtggc agatcacttg aggtcaggag ttcaagacca gcctggccaa 1100
catggtgaaa ctccatctct actaaaaaaaaaaaaataca aaaattagct 1150
gggtgcgc ta gtgcattgcct gtaatctcat ctactcgga ggctaaagaca 1200
ggagactctc acttcaaccc aggaggtgga ggttcgggtg agccaagatt 1250
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aaaataataa taataataat tcagactcct tatcaggagt ccatgatctg 1350
gcctggcaca gtaactcatg cctgtaatcc caacatttg ggaggccaac 1400
gcaggaggat tgcttgaggt ctggaggatt gagaccagcc tggcaacat 1450
agaaagaccc catctctaaa taaatgtttt aaaaat 1486

<210> 346

<211> 124

<212> PRT

<213> Homo sapiens

<400> 346

Met	Glu	Leu	Pro	Phe	Val	Thr	His	Leu	Phe	Leu	Pro	Leu	Val	Phe
1		5				10							15	
Leu	Thr	Gly	Leu	Cys	Ser	Pro	Phe	Asn	Leu	Asp	Glu	His	His	Pro
			20					25					30	
Arg	Leu	Phe	Pro	Gly	Pro	Pro	Glu	Ala	Glu	Phe	Gly	Tyr	Ser	Val
			35					40					45	
Leu	Gln	His	Val	Gly	Gly	Gly	Gln	Arg	Trp	Met	Leu	Val	Gly	Ala
			50					55					60	
Pro	Trp	Asp	Gly	Pro	Ser	Gly	Asp	Arg	Arg	Gly	Asp	Val	Tyr	Arg
			65					70					75	
Cys	Pro	Val	Gly	Gly	Ala	His	Asn	Ala	Pro	Cys	Ala	Lys	Gly	His
			80					85					90	
Leu	Gly	Asp	Tyr	Gln	Leu	Gly	Asn	Ser	Ser	His	Pro	Ala	Val	Asn
			95					100					105	
Met	His	Leu	Gly	Met	Ser	Leu	Leu	Glu	Thr	Asp	Gly	Asp	Gly	Gly
			110					115					120	

Phe Met Val Ser

<210> 347
<211> 509
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 22
<223> unknown base

<400> 347
cacagttccc caccatcaact cntcccattc cttccaactt tatttttagc 50
ttgccattgg gagggggcag gatgggagg aaagtgaaga aaacagaaaa 100
ggagagggac agaggccaga ggacttctca tactggacag aaaccgatca 150
ggcatgaaac tccccttcgt cactcacctg ttcttgcccc tggtgttcct 200
gacaggtctc tgctccccct ttaacctgga tgaacatcac ccacgcctat 250
tcccagggcc accagaagct gaatttggat acagtgtctt acaacatgtt 300
gggggtggac agcgatggat gctggtggc gccccctggg atgggccttc 350
aggcgaccgg aggggggacg tttatcgctg ccctgttaggg ggggcccaca 400
atgccccatg tgccaagggc cacttaggtg actaccaact gggaaattca 450
tctcatcctg ctgtgaatat gcacctgggg atgtctctgt tagagacaga 500

tggtgatgg 509

<210> 348
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 348
agggacagag gccagaggac ttc 23

<210> 349
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 349
caggtgcata ttcacagcag gatg 24

<210> 350
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 350
 ggaactcccc ttcgtcactc acctgttctt gcccctggtg ttcct 45

<210> 351
<211> 2056
<212> DNA
<213> Homo sapiens

<400> 351
 aaagttacat tttctctgga actctcctag gccactccct gctgatgcaa 50
 catctgggtt tgggcagaaa ggagggtgct tcggagcccg ccctttctga 100
 gtttcctggg ccggctctag aacaattcag gtttcgtgc gactcagacc 150
 tcagctccaa catatgcatt ctgaagaaag atggctgaga tggacagaat 200
 gctttatttt ggaaagaaac aatgttctag gtcaaactga gtctaccaaa 250
 tgcagacttt cacaatggtt cttagaagaaa tctggacaag tctttcatg 300
 tggttttctt acgcattgtat tccatgtttg ctcacagatg aagtggccat 350
 tctgcctgcc cctcagaacc tctctgtact ctcaaccaac atgaagcatc 400
 tcttgatgtg gagcccagtg atcgcgctg gagaaacagt gtactattct 450
 gtcgaatacc agggggagta cgagagcctg tacacgagcc acatctggat 500
 ccccagcagc tggtgctcac tcactgaagg tcctgagtgt gatgtcactg 550
 atgacatcac ggccactgtg ccatacaacc ttctgtcag ggccacattg 600
 ggctcacaga cctcagcctg gagcatcctg aagcatccct ttaatagaaaa 650
 ctcaaccatc cttacccgac ctggatgga gatcaccaaa gatggcttcc 700
 acctggttat tgagctggag gacctggggc cccagttga gttccttg 750
 gcctactgga ggagggagcc tggtgccgag gaacatgtca aaatggtgag 800
 gagtgggggt attccagtgc acctagaaac catggagcca ggggctgcat 850
 actgtgtgaa ggcccagaca ttctgtgaaagg ccattgggag gtacagcgcc 900
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cactgttcgt ctggaaaatg ggccggctgc tccagtaactc ctgttgcccc 1050
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acggaggatc catgaactac tgtaaagtgt tgacagtgtg tgcacactgc 1900
agacagcagg tgaaatgtat gtgtgcaatg cgacgagaat gcagaagtca 1950
gtaacatgtg catgtttgtt gtgctcctt tttctgttgg taaagtacag 2000
aattcagcaa ataaaaaggg ccaccctggc caaaagcggt aaaaaaaaaa 2050
aaaaaaaa 2056

<210> 352
<211> 311
<212> PRT
<213> Homo sapiens

<400> 352
Met Gln Thr Phe Thr Met Val Leu Glu Glu Ile Trp Thr Ser Leu
1 5 10 15

Phe Met Trp Phe Phe Tyr Ala Leu Ile Pro Cys Leu Leu Thr Asp
20 25 30

Glu Val Ala Ile Leu Pro Ala Pro Gln Asn Leu Ser Val Leu Ser
35 40 45

Thr Asn Met Lys His Leu Leu Met Trp Ser Pro Val Ile Ala Pro
50 55 60

Gly Glu Thr Val Tyr Tyr Ser Val Glu Tyr Gln Gly Glu Tyr Glu
65 70 75

Ser Leu Tyr Thr Ser His Ile Trp Ile Pro Ser Ser Trp Cys Ser
80 85 90

Leu Thr Glu Gly Pro Glu Cys Asp Val Thr Asp Asp Ile Thr Ala
95 100 105

Thr Val Pro Tyr Asn Leu Arg Val Arg Ala Thr Leu Gly Ser Gln
110 115 120

Thr Ser Ala Trp Ser Ile Leu Lys His Pro Phe Asn Arg Asn Ser
125 130 135

Thr Ile Leu Thr Arg Pro Gly Met Glu Ile Thr Lys Asp Gly Phe
140 145 150

His Leu Val Ile Glu Leu Glu Asp Leu Gly Pro Gln Phe Glu Phe
155 160 165

Leu Val Ala Tyr Trp Arg Arg Glu Pro Gly Ala Glu Glu His Val
170 175 180

Lys Met Val Arg Ser Gly Gly Ile Pro Val His Leu Glu Thr Met
185 190 195

Glu Pro Gly Ala Ala Tyr Cys Val Lys Ala Gln Thr Phe Val Lys
200 205 210

Ala Ile Gly Arg Tyr Ser Ala Phe Ser Gln Thr Glu Cys Val Glu
215 220 225

Val Gln Gly Glu Ala Ile Pro Leu Val Leu Ala Leu Phe Ala Phe
230 235 240

Val Gly Phe Met Leu Ile Leu Val Val Pro Leu Phe Val Trp
245 250 255

Lys Met Gly Arg Leu Leu Gln Tyr Ser Cys Cys Pro Val Val Val
260 265 270

Leu Pro Asp Thr Leu Lys Ile Thr Asn Ser Pro Gln Lys Leu Ile
275 280 285

Ser Cys Arg Arg Glu Glu Val Asp Ala Cys Ala Thr Ala Val Met
290 295 300

Ser Pro Glu Glu Leu Leu Arg Ala Trp Ile Ser
305 310

<210> 353
<211> 864
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 654, 711, 748, 827
<223> unknown base

<400> 353
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cctttcttagc ttccctggccg gctctagaac aattcaggct tcgctgcgac 100
tagacctcag ctccaacata tgcattctga agaaagatgg ctgagatgac 150
agaatgcttt attttggaaa gaaacaatgt tctaggtcaa actgagtcta 200
ccaaatgcag actttcacaa tggttctaga agaaatctgg acaagtcttt 250
tcatgtggtt tttctacgca ttgattccat gtttgcac agatgaagt 300
gccattctgc ctgcccctca gaacctctct gtactctcaa ccaacatgaa 350
gcatctcttg atgtggagcc cagtgatcgc gcctggagaa acagtgtact 400
attctgtcga ataccagggg gagtacgaga gcctgtacac gagccacatc 450
tggatccccca gcagctggtg ctcactcact gaaggcctg agtgtatgt 500
cactgatgac atcaacggcca ctgtgccata caacccttgt gtcagggcca 550
cattgggctc acagacctca gcctggagca tcctgaagca tcccttaat 600
agaaactcaa ccacccctac ccgacctggg atggagatca ccaaagatgg 650
cttncacctg gttattgagc tggaggacct gggggccccag tttgagttcc 700
ttgtggccta ntggaggagg ggcgaacccc ttgcggcgca aggggttngc 750
gaaccccttg cggccgctgg ggtatctctc gaaaaagag aggccaata 800
tgacccacat actcaaatatg gacgaantgc tattgtccac ctgtttgagt 850
ggcgctgggt tgat 864

<210> 354
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 354
aggcttcgct gcgactagac ctc 23

<210> 355
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 355
ccaggtcggg taaggatggt tgag 24

<210> 356
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 356
tttctacgca ttgattccat gtttgctcac agatgaagtg gccattctgc 50

<210> 357
<211> 1670
<212> DNA
<213> Homo sapiens

<400> 357
cccacgcgtc cgcccacgct tccgagggac aagagagaag agagactgaa 50
acaggagaa gagggcaggag aggaggaggt ggggagagca cgaagctgg 100

ggccgacact gagggaggc gggaggaggt gaagaaggag agaggggaga 150
agaggcagga gctggaaagg agagagggag gagggaggagg agatgcggga 200
tggagacctg gagtttaggtg gcttgggaga gcttaatgaa aagagaacgg 250
agaggaggtg tgggttagga accaagaggt agccctgtgg gcagcagaag 300
gctgagagga gtaggaagat caggagctag agggagactg gagggttccg 350
ggaaaagagc agaggaaaga ggaaagacac agagagacgg gagagagaag 400
aagagtgggt ttgaagggcg gatctcagtc cctggctgct ttggcatttg 450
ggaaactggg actccctgtg gggaggagag gaaagctgga agtcctggag 500
ggacagggtc ccagaaggag gggacagagg agctgagaga ggggggcagg 550
gcgttgggca ggggtccctc ggaggcctcc tggggatggg ggctgcagct 600
cgtctgagcg cccctcgagc gctggtaactc tgggctgcac tggggggcagc 650
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ataatctcca gggaaacttc gtgccagggc ctccttctg gggcctggg 750
aatgcagcgt ggagtctgtg tgctgtgggg aagcggcaga gccccgtgga 800
tgtggagctg aagagggttc tttatgaccc ctttctgccc ccattaaggc 850
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gagccagaat cttccatctc agatcttcca gagcctcagc ggttaacagcc 1450
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cgccaccccg agaggcgctg ccgaggccca aactaccgca tgcattgtgga 1550

tgggtcccc catggtcgtc gagactcccc ttgcaggatt gcacccggccc 1600
gtcctaagcc tccccacaag gcgaggggag ttacccctaa aacaaagcta 1650
ttaaagggac agaataactta 1670

<210> 358
<211> 328
<212> PRT
<213> Homo sapiens

<400> 358
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20 25 30
Pro Glu Asp Trp Trp Ser Tyr Lys Asp Asn Leu Gln Gly Asn Phe
35 40 45
Val Pro Gly Pro Pro Phe Trp Gly Leu Val Asn Ala Ala Trp Ser
50 55 60

Leu	Cys	Ala	Val	Gly	Lys	Arg	Gln	Ser	Pro	Val	Asp	Val	Glu	Leu
65									70					75
Lys Arg Val Leu Tyr Asp Pro Phe Leu Pro Pro Leu Arg Leu Ser														
80									85					90
Thr	Gly	Gly	Glu	Lys	Leu	Arg	Gly	Thr	Leu	Tyr	Asn	Thr	Gly	Arg
95									100					105
His	Val	Ser	Phe	Leu	Pro	Ala	Pro	Arg	Pro	Val	Val	Asn	Val	Ser
									110			115		120
Gly	Gly	Pro	Leu	Leu	Tyr	Ser	His	Arg	Leu	Ser	Glu	Leu	Arg	Leu
									125			130		135
Leu	Phe	Gly	Ala	Arg	Asp	Gly	Ala	Gly	Ser	Glu	His	Gln	Ile	Asn
					140				145					150
His	Gln	Gly	Phe	Ser	Ala	Glu	Val	Gln	Leu	Ile	His	Phe	Asn	Gln
					155				160					165
Glu	Leu	Tyr	Gly	Asn	Phe	Ser	Ala	Ala	Ser	Arg	Gly	Pro	Asn	Gly
					170				175					180
Leu	Ala	Ile	Leu	Ser	Leu	Phe	Val	Asn	Val	Ala	Ser	Thr	Ser	Asn
					185				190					195
Pro	Phe	Leu	Ser	Arg	Leu	Leu	Asn	Arg	Asp	Thr	Ile	Thr	Arg	Ile
					200				205					210
Ser	Tyr	Lys	Asn	Asp	Ala	Tyr	Phe	Leu	Gln	Asp	Leu	Ser	Leu	Glu
					215				220					225
Leu	Leu	Phe	Pro	Glu	Ser	Phe	Gly	Phe	Ile	Thr	Tyr	Gln	Gly	Ser
					230				235					240
Leu	Ser	Thr	Pro	Pro	Cys	Ser	Glu	Thr	Val	Thr	Trp	Ile	Leu	Ile
					245				250					255
Asp	Arg	Ala	Leu	Asn	Ile	Thr	Ser	Leu	Gln	Met	His	Ser	Leu	Arg
					260				265					270
Leu	Leu	Ser	Gln	Asn	Pro	Pro	Ser	Gln	Ile	Phe	Gln	Ser	Leu	Ser
					275				280					285
Gly	Asn	Ser	Arg	Pro	Leu	Gln	Pro	Leu	Ala	His	Arg	Ala	Leu	Arg
					290				295					300
Gly	Asn	Arg	Asp	Pro	Arg	His	Pro	Glu	Arg	Arg	Cys	Arg	Gly	Pro
					305				310					315
Asn	Tyr	Arg	Leu	His	Val	Asp	Gly	Val	Pro	His	Gly	Arg		
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<210> 359

<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 359
tctgctgagg tgcagtcat tcac 24

<210> 360
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 360
gagggtctgg aagatctgag atgg 24

<210> 361
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 361
gcctctttgt caacgttgcc agtacctcta acccattcct cagtcgcctc 50

<210> 362
<211> 3038

<212> DNA
<213> Homo sapiens

<400> 362
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gcagctactg ctcagaaacg ctggggcgcc caccctggca gactaacgaa 150
gcagctccct tcccacccca actgcaggc taattttgga cgctttgcct 200
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ctgcagtcag cacccacgac gccccggac gctcggtgct caggcccttc 300
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aaccacagtg ctgttcatgg ctagagcaat tccagccatg gtggttccca 550
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aaatgtattt tgcttgata ctaaaaatct gtaaaatgtt agttttggta 2950
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taaacattaa aatcatatcat gttcaaaaaa aaaaaaaaaa 3038

<210> 363
<211> 500
<212> PRT
<213> Homo sapiens

<400> 363
Met Lys Cys Thr Ala Arg Glu Trp Leu Arg Val Thr Thr Val Leu
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Phe Met Ala Arg Ala Ile Pro Ala Met Val Val Pro Asn Ala Thr
20 25 30

Leu Leu Glu Lys Leu Leu Glu Lys Tyr Met Asp Glu Asp Gly Glu
35 40 45

Trp Trp Ile Ala Lys Gln Arg Gly Lys Arg Ala Ile Thr Asp Asn
50 55 60

Asp Met Gln Ser Ile Leu Asp Leu His Asn Lys Leu Arg Ser Gln
65 70 75

Val Tyr Pro Thr Ala Ser Asn Met Glu Tyr Met Thr Trp Asp Val
80 85 90

Glu Leu Glu Arg Ser Ala Glu Ser Trp Ala Glu Ser Cys Leu Trp
95 100 105

Glu His Gly Pro Ala Ser Leu Leu Pro Ser Ile Gly Gln Asn Leu
110 115 120

Gly Ala His Trp Gly Arg Tyr Arg Pro Pro Thr Phe His Val Gln
125 130 135

Ser Trp Tyr Asp Glu Val Lys Asp Phe Ser Tyr Pro Tyr Glu His
140 145 150

Glu Cys Asn Pro Tyr Cys Pro Phe Arg Cys Ser Gly Pro Val Cys
155 160 165

Thr His Tyr Thr Gln Val Val Trp Ala Thr Ser Asn Arg Ile Gly
170 175 180

Cys Ala Ile Asn Leu Cys His Asn Met Asn Ile Trp Gly Gln Ile
185 190 195

Trp Pro Lys Ala Val Tyr Leu Val Cys Asn Tyr Ser Pro Lys Gly
200 205 210

Asn Trp Trp Gly His Ala Pro Tyr Lys His Gly Arg Pro Cys Ser
215 220 225

Ala Cys Pro Pro Ser Phe Gly Gly Cys Arg Glu Asn Leu Cys
230 235 240

Tyr Lys Glu Gly Ser Asp Arg Tyr Tyr Pro Pro Arg Glu Glu Glu
245 250 255

Thr Asn Glu Ile Glu Arg Gln Gln Ser Gln Val His Asp Thr His
260 265 270

Val Arg Thr Arg Ser Asp Asp Ser Ser Arg Asn Glu Val Ile Ser
275 280 285

Ala Gln Gln Met Ser Gln Ile Val Ser Cys Glu Val Arg Leu Arg
290 295 300

Asp Gln Cys Lys Gly Thr Thr Cys Asn Arg Tyr Glu Cys Pro Ala
305 310 315

Gly Cys Leu Asp Ser Lys Ala Lys Val Ile Gly Ser Val His Tyr
320 325 330

Glu Met Gln Ser Ser Ile Cys Arg Ala Ala Ile His Tyr Gly Ile
335 340 345

Ile Asp Asn Asp Gly Gly Trp Val Asp Ile Thr Arg Gln Gly Arg
350 355 360

Lys His Tyr Phe Ile Lys Ser Asn Arg Asn Gly Ile Gln Thr Ile
365 370 375

Gly Lys Tyr Gln Ser Ala Asn Ser Phe Thr Val Ser Lys Val Thr
380 385 390

Val Gln Ala Val Thr Cys Glu Thr Thr Val Glu Gln Leu Cys Pro
395 400 405

Phe His Lys Pro Ala Ser His Cys Pro Arg Val Tyr Cys Pro Arg
410 415 420

Asn Cys Met Gln Ala Asn Pro His Tyr Ala Arg Val Ile Gly Thr
425 430 435

Arg Val Tyr Ser Asp Leu Ser Ser Ile Cys Arg Ala Ala Val His
440 445 450

Ala Gly Val Val Arg Asn His Gly Gly Tyr Val Asp Val Met Pro
455 460 465

Val Asp Lys Arg Lys Thr Tyr Ile Ala Ser Phe Gln Asn Gly Ile
470 475 480

Phe Ser Glu Ser Leu Gln Asn Pro Pro Gly Gly Lys Ala Phe Arg
485 490 495

Val Phe Ala Val Val
500

<210> 364

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 364

ggacagaatt tgggagcaca ctgg 24

<210> 365

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 365
ccaagagtat actgtcctcg 20

<210> 366
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 366
agcacagatt ttctctacag ccccc 25

<210> 367
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 367
aaccactcca gcatgtactg ctgc 24

<210> 368
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 368
ccattcagggt gttctggccc tgtatgtaca cattatacac aggtcgtgt 50

<210> 369
<211> 1685
<212> DNA
<213> Homo sapiens

<400> 369
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ggccagcgcc ctccccatgt ccctgctccc acgccgcgcc cctccggta 200
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accgcgcgtg tggacgggtc caaatgcaag tgctccggta agggacccaa 300
gatccgctac agcgacgtga agaagctgga aatgaagcca aagtacccgc 350

actgcgagga gaagatggtt atcatcacca ccaagagcgt gtccaggtac 400
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tcccaacctg aggatttctg aaaggttcac aggtcaata ttaatgttt 1250
cagaagcatg tgaggttccc aacactgtca gcaaaaacct taggagaaaa 1300
cttaaaaata tatgaataca tgcgcaatac acagctacag acacacattc 1350
tggacaag ggaaaacctt caaagcatgt ttcttcctt caccacaaca 1400
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tttcctctgt acatatacc ttaagaacgc cccctccaca cactgcccc 1550
cagtatatgc cgcattgtac tgctgtgtta tatgctatgt acatgtcaga 1600
aaccatttagc attgcattgca gttttcatat tcttctaaag atggaaagta 1650
ataaaatata tttgaaatgt aaaaaaaaaa aaaaa 1685

<210> 370

<211> 111

<212> PRT

<213> Homo sapiens

<400> 370

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	20							25				30		
Arg	Val	Asp	Gly	Ser	Lys	Cys	Lys	Cys	Ser	Arg	Lys	Gly	Pro	Lys
	35							40				45		
Ile	Arg	Tyr	Ser	Asp	Val	Lys	Lys	Leu	Glu	Met	Lys	Pro	Lys	Tyr
	50							55				60		
Pro	His	Cys	Glu	Glu	Lys	Met	Val	Ile	Ile	Thr	Thr	Lys	Ser	Val
	65							70				75		
Ser	Arg	Tyr	Arg	Gly	Gln	Glu	His	Cys	Leu	His	Pro	Lys	Leu	Gln
	80							85				90		
Ser	Thr	Lys	Arg	Phe	Ile	Lys	Trp	Tyr	Asn	Ala	Trp	Asn	Glu	Lys
	95							100				105		
Arg	Arg	Val	Tyr	Glu	Glu									
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<210> 371

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 371

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<210> 372

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 372

tcccaactgg tttggagttt tccc 24

<210> 373

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 373
ctccggtcag cataggagtc ctggcgccg ctgctcctgc tgctg 45

<210> 374
<211> 3113
<212> DNA
<213> Homo sapiens

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caaaatccgg ggcctaagaa caccgttacc caatgagatc ttgggtccag 200
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gtaatgaccg tggtaagac gaagatattc atgatcagaa cagtaagaag 550
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<210> 375

<211> 816

<212> PRT

<213> Homo sapiens

<400> 375

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Thr Asn Tyr Gly Lys Ile Arg Gly Leu Arg Thr Pro Leu Pro Asn
35 40 45

Glu Ile Leu Gly Pro Val Glu Gln Tyr Leu Gly Val Pro Tyr Ala
50 55 60

Ser Pro Pro Thr Gly Glu Arg Arg Phe Gln Pro Pro Glu Pro Pro
65 70 75

Ser Ser Trp Thr Gly Ile Arg Asn Thr Thr Gln Phe Ala Ala Val
80 85 90

Cys Pro Gln His Leu Asp Glu Arg Ser Leu Leu His Asp Met Leu
95 100 105

Pro Ile Trp Phe Thr Ala Asn Leu Asp Thr Leu Met Thr Tyr Val
110 115 120

Gln Asp Gln Asn Glu Asp Cys Leu Tyr Leu Asn Ile Tyr Val Pro
125 130 135

Thr Glu Asp Gly Ala Asn Thr Lys Lys Asn Ala Asp Asp Ile Thr
140 145 150

Ser Asn Asp Arg Gly Glu Asp Glu Asp Ile His Asp Gln Asn Ser
155 160 165

Lys Lys Pro Val Met Val Tyr Ile His Gly Gly Ser Tyr Met Glu
170 175 180

Gly Thr Gly Asn Met Ile Asp Gly Ser Ile Leu Ala Ser Tyr Gly
185 190 195

Asn Val Ile Val Ile Thr Ile Asn Tyr Arg Leu Gly Ile Leu Gly
200 205 210

Phe Leu Ser Thr Gly Asp Gln Ala Ala Lys Gly Asn Tyr Gly Leu
215 220 225

Leu Asp Gln Ile Gln Ala Leu Arg Trp Ile Glu Glu Asn Val Gly
230 235 240

Ala Phe Gly Gly Asp Pro Lys Arg Val Thr Ile Phe Gly Ser Gly
245 250 255

Ala Gly Ala Ser Cys Val Ser Leu Leu Thr Leu Ser His Tyr Ser
260 265 270

Glu Gly Leu Phe Gln Lys Ala Ile Ile Gln Ser Gly Thr Ala Leu
275 280 285

Ser Ser Trp Ala Val Asn Tyr Gln Pro Ala Lys Tyr Thr Arg Ile
290 295 300

Leu Ala Asp Lys Val Gly Cys Asn Met Leu Asp Thr Thr Asp Met
305 310 315

Val Glu Cys Leu Arg Asn Lys Asn Tyr Lys Glu Leu Ile Gln Gln
320 325 330

Thr Ile Thr Pro Ala Thr Tyr His Ile Ala Phe Gly Pro Val Ile
335 340 345

Asp Gly Asp Val Ile Pro Asp Asp Pro Gln Ile Leu Met Glu Gln
350 355 360

Gly Glu Phe Leu Asn Tyr Asp Ile Met Leu Gly Val Asn Gln Gly
365 370 375

Glu Gly Leu Lys Phe Val Asp Gly Ile Val Asp Asn Glu Asp Gly
380 385 390

Val Thr Pro Asn Asp Phe Asp Phe Ser Val Ser Asn Phe Val Asp
395 400 405

Asn Leu Tyr Gly Tyr Pro Glu Gly Lys Asp Thr Leu Arg Glu Thr
410 415 420

Ile Lys Phe Met Tyr Thr Asp Trp Ala Asp Lys Glu Asn Pro Glu
425 430 435

Thr Arg Arg Lys Thr Leu Val Ala Leu Phe Thr Asp His Gln Trp
440 445 450

Val Ala Pro Ala Val Ala Ala Asp Leu His Ala Gln Tyr Gly Ser
455 460 465

Pro Thr Tyr Phe Tyr Ala Phe Tyr His His Cys Gln Ser Glu Met
470 475 480

Lys Pro Ser Trp Ala Asp Ser Ala His Gly Asp Glu Val Pro Tyr
485 490 495

Val Phe Gly Ile Pro Met Ile Gly Pro Thr Glu Leu Phe Ser Cys
500 505 510

Asn Phe Ser Lys Asn Asp Val Met Leu Ser Ala Val Val Met Thr
515 520 525

Tyr Trp Thr Asn Phe Ala Lys Thr Gly Asp Pro Asn Gln Pro Val
530 535 540

Pro Gln Asp Thr Lys Phe Ile His Thr Lys Pro Asn Arg Phe Glu
545 550 555

Glu Val Ala Trp Ser Lys Tyr Asn Pro Lys Asp Gln Leu Tyr Leu
560 565 570

His Ile Gly Leu Lys Pro Arg Val Arg Asp His Tyr Arg Ala Thr
575 580 585

Lys Val Ala Phe Trp Leu Glu Leu Val Pro His Leu His Asn Leu
590 595 600

Asn Glu Ile Phe Gln Tyr Val Ser Thr Thr Thr Lys Val Pro Pro
605 610 615

Pro Asp Met Thr Ser Phe Pro Tyr Gly Thr Arg Arg Ser Pro Ala
620 625 630

Lys Ile Trp Pro Thr Thr Lys Arg Pro Ala Ile Thr Pro Ala Asn
635 640 645

Asn Pro Lys His Ser Lys Asp Pro His Lys Thr Gly Pro Glu Asp
650 655 660

Thr Thr Val Leu Ile Glu Thr Lys Arg Asp Tyr Ser Thr Glu Leu
665 670 675

Ser Val Thr Ile Ala Val Gly Ala Ser Leu Leu Phe Leu Asn Ile
680 685 690

Leu Ala Phe Ala Ala Leu Tyr Tyr Lys Lys Asp Lys Arg Arg His
695 700 705

Glu Thr His Arg Arg Pro Ser Pro Gln Arg Asn Thr Thr Asn Asp
710 715 720

Ile Ala His Ile Gln Asn Glu Glu Ile Met Ser Leu Gln Met Lys
725 730 735

Gln Leu Glu His Asp His Glu Cys Glu Ser Leu Gln Ala His Asp
740 745 750

Thr Leu Arg Leu Thr Cys Pro Pro Asp Tyr Thr Leu Thr Leu Arg
755 760 765

Arg Ser Pro Asp Asp Ile Pro Leu Met Thr Pro Asn Thr Ile Thr
770 775 780

Met Ile Pro Asn Thr Leu Thr Gly Met Gln Pro Leu His Thr Phe
785 790 795

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800 805 810

His Ser Thr Thr Arg Val
815

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<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 376
ggcaagctac ggaaacgtca tcgtg 25

<210> 377
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 377
aacccccc gag ccaaaagatg gtcac 25

<210> 378
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<212> DNA
<213> Artificial Sequence

<220>
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gtaccggta ccaggcagca aaaggcaact atgggctcct ggatcag 47

<210> 379
<211> 2461
<212> DNA

<213> Homo sapiens

<400> 379

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ttgttgggtt ctgggcagggtt gccacagcaaa gtcggggcggtt gtcaaacgtt 150
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<210> 380

<211> 348

<212> PRT

<213> Homo sapiens

<400> 380

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Gln	Thr	Phe	Glu	Tyr	Leu	Lys	Arg	Glu	His	Ser	Leu	Ser	Lys	Pro
						50			55					60
Tyr	Gln	Gly	Val	Gly	Thr	Gly	Ser	Ser	Ser	Leu	Trp	Asn	Leu	Met
						65			70					75
Gly	Asn	Ala	Met	Val	Met	Thr	Gln	Tyr	Ile	Arg	Leu	Thr	Pro	Asp
						80			85					90
Met	Gln	Ser	Lys	Gln	Gly	Ala	Leu	Trp	Asn	Arg	Val	Pro	Cys	Phe
						95			100					105
Leu	Arg	Asp	Trp	Glu	Leu	Gln	Val	His	Phe	Lys	Ile	His	Gly	Gln
						110			115					120
Gly	Lys	Lys	Asn	Leu	His	Gly	Asp	Gly	Leu	Ala	Ile	Trp	Tyr	Thr
						125			130					135
Lys	Asp	Arg	Met	Gln	Pro	Gly	Pro	Val	Phe	Gly	Asn	Met	Asp	Lys
						140			145					150
Phe	Val	Gly	Leu	Gly	Val	Phe	Val	Asp	Thr	Tyr	Pro	Asn	Glu	Glu
						155			160					165
Lys	Gln	Gln	Glu	Arg	Val	Phe	Pro	Tyr	Ile	Ser	Ala	Met	Val	Asn
						170			175					180
Asn	Gly	Ser	Leu	Ser	Tyr	Asp	His	Glu	Arg	Asp	Gly	Arg	Pro	Thr
						185			190					195
Glu	Leu	Gly	Gly	Cys	Thr	Ala	Ile	Val	Arg	Asn	Leu	His	Tyr	Asp
						200			205					210
Thr	Phe	Leu	Val	Ile	Arg	Tyr	Val	Lys	Arg	His	Leu	Thr	Ile	Met
						215			220					225
Met	Asp	Ile	Asp	Gly	Lys	His	Glu	Trp	Arg	Asp	Cys	Ile	Glu	Val
						230			235					240
Pro	Gly	Val	Arg	Leu	Pro	Arg	Gly	Tyr	Tyr	Phe	Gly	Thr	Ser	Ser
						245			250					255
Ile	Thr	Gly	Asp	Leu	Ser	Asp	Asn	His	Asp	Val	Ile	Ser	Leu	Lys
						260			265					270
Leu	Phe	Glu	Leu	Thr	Val	Glu	Arg	Thr	Pro	Glu	Glu	Glu	Lys	Leu
						275			280					285
His	Arg	Asp	Val	Phe	Leu	Pro	Ser	Val	Asp	Asn	Met	Lys	Leu	Pro
						290			295					300
Glu	Met	Thr	Ala	Pro	Leu	Pro	Pro	Leu	Ser	Gly	Leu	Ala	Leu	Phe
						305			310					315

Leu Ile Val Phe Phe Ser Leu Val Phe Ser Val Phe Ala Ile Val
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Ile Gly Ile Ile Leu Tyr Asn Lys Trp Gln Glu Gln Ser Arg Lys
335 340 345

Arg Phe Tyr

<210> 381
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 381
ccttgggtcg tggcagcagt gg 22

<210> 382
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 382
cactctccag gctgcatgct cagg 24

<210> 383
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 383
gtcaaacgtt cgagtacttg aaacgggagc actcgctgtc gaagc 45

<210> 384
<211> 3150
<212> DNA
<213> Homo sapiens

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gtgagtgcaa tctacggatc agtctctgat ggtgggtcgt taacctcagt 100
ggggactcca agattccat gaagaaaatc agttgtcttc attcaagaat 150
tggggtctgg ctcagaattc ctgcagctgg tgaaaatctg ttttctagaa 200

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<210> 385
<211> 480
<212> PRT
<213> Homo sapiens

<400> 385
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Pro Val Ser Thr Pro Lys Asn Gly Met Ser Ser Lys Ser Arg Lys
35 40 45
Arg Ile Met Pro Asp Pro Val Thr Glu Pro Pro Val Thr Asp Pro
50 55 60
Val Tyr Glu Ala Leu Leu Tyr Cys Asn Ile Pro Ser Val Ala Glu
65 70 75
Arg Ser Met Glu Gly His Ala Pro His His Phe Lys Leu Val Ser
80 85 90
Val His Val Phe Ile Arg His Gly Asp Arg Tyr Pro Leu Tyr Val
95 100 105
Ile Pro Lys Thr Lys Arg Pro Glu Ile Asp Cys Thr Leu Val Ala
110 115 120
Asn Arg Lys Pro Tyr His Pro Lys Leu Glu Ala Phe Ile Ser His
125 130 135
Met Ser Lys Gly Ser Gly Ala Ser Phe Glu Ser Pro Leu Asn Ser
140 145 150
Leu Pro Leu Tyr Pro Asn His Pro Leu Cys Glu Met Gly Glu Leu
155 160 165
Thr Gln Thr Gly Val Val Gln His Leu Gln Asn Gly Gln Leu Leu
170 175 180
Arg Asp Ile Tyr Leu Lys Lys His Lys Leu Leu Pro Asn Asp Trp
185 190 195
Ser Ala Asp Gln Leu Tyr Leu Glu Thr Thr Gly Lys Ser Arg Thr
200 205 210
Leu Gln Ser Gly Leu Ala Leu Leu Tyr Gly Phe Leu Pro Asp Phe
215 220 225
Asp Trp Lys Lys Ile Tyr Phe Arg His Gln Pro Ser Ala Leu Phe
230 235 240

Cys	Ser	Gly	Ser	Cys	Tyr	Cys	Pro	Val	Arg	Asn	Gln	Tyr	Leu	Glu
				245			250						255	
Lys	Glu	Gln	Arg	Arg	Gln	Tyr	Leu	Leu	Arg	Leu	Lys	Asn	Ser	Gln
	260					265							270	
Leu	Glu	Lys	Thr	Tyr	Gly	Glu	Met	Ala	Lys	Ile	Val	Asp	Val	Pro
			275			280			295			285		
Thr	Lys	Gln	Leu	Arg	Ala	Ala	Asn	Pro	Ile	Asp	Ser	Met	Leu	Cys
			290				295					300		
His	Phe	Cys	His	Asn	Val	Ser	Phe	Pro	Cys	Thr	Arg	Asn	Gly	Cys
			305				310					315		
Val	Asp	Met	Glu	His	Phe	Lys	Val	Ile	Lys	Thr	His	Gln	Ile	Glu
			320				325					330		
Asp	Glu	Arg	Glu	Arg	Glu	Lys	Lys	Leu	Tyr	Phe	Gly	Tyr	Ser	
			335				340					345		
Leu	Leu	Gly	Ala	His	Pro	Ile	Leu	Asn	Gln	Thr	Ile	Gly	Arg	Met
			350				355					360		
Gln	Arg	Ala	Thr	Glu	Gly	Arg	Lys	Glu	Glu	Leu	Phe	Ala	Leu	Tyr
			365				370					375		
Ser	Ala	His	Asp	Val	Thr	Leu	Ser	Pro	Val	Leu	Ser	Ala	Leu	Gly
			380				385					390		
Leu	Ser	Glu	Ala	Arg	Phe	Pro	Arg	Phe	Ala	Ala	Arg	Leu	Ile	Phe
			395				400					405		
Glu	Leu	Trp	Gln	Asp	Arg	Glu	Lys	Pro	Ser	Glu	His	Ser	Val	Arg
			410				415					420		
Ile	Leu	Tyr	Asn	Gly	Val	Asp	Val	Thr	Phe	His	Thr	Ser	Phe	Cys
			425				430					435		
Gln	Asp	His	His	Lys	Arg	Ser	Pro	Lys	Pro	Met	Cys	Pro	Leu	Glu
			440				445					450		
Asn	Leu	Val	Arg	Phe	Val	Lys	Arg	Asp	Met	Phe	Val	Ala	Leu	Gly
			455				460					465		
Gly	Ser	Gly	Thr	Asn	Tyr	Tyr	Asp	Ala	Cys	His	Arg	Glu	Gly	Phe
			470				475					480		

<210> 386

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 386
ccaaagcagct tagagctcca gacc 24

<210> 387
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 387
ttcccttatgc tctgtattgg catgg 25

<210> 388
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 388
gccacttctg ccacaatgtc agctttccct gtaccagaaa tggctgtgtt 50

<210> 389
<211> 3313
<212> DNA
<213> Homo sapiens

<400> 389
aaaaaaagctc actaaagttt ctattagagc gaatacggta gatttccatc 50

ccctttgaa gaacagtact gtggagctat ttaagagata aaaacgaaat 100
atcctttctg ggagttcaag attgtcgagt aattggtag gactctgagc 150
gccgctgttc accaatcggg gagagaaaaag cggagatcct gctcgccctg 200
cacgcgcctg aagcacaaag cagatagcta ggaatgaacc atccctggaa 250
gtatgtggaa acaacggagg agctctgact tcccaactgt cccattctat 300
gggcgaagga actgctcctg acttcagtgg ttaagggcag aattgaaaat 350
aattctggag gaagataaga atgattcctg cgcgactgca ccggactac 400
aaaggccttg tcctgtggg aatcctcctg gggactctgt gggagacccgg 450
atgcacccag atacgttatt cagttccggaa agagctggag aaaggctcta 500
gggtgggcga catctccagg gacctggggc tggagccccgg ggagctcgcg 550
gagcgcggag tccgcatcat cccagaggt aggacgcagc ttttcgcctt 600
gaatccgcgc agcggcagct tggcacggc gggcaggata gaccgggagg 650

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gaggataaag tgaaaatata tggagtagaa gtagaagtaa gggacattaa 750
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acttgggagg ctgagtcagg agaattgctt taacctggga ggtggaggtt 3250
gcaatgagct gagattgtgc cattgcactc cagcctggc aacaagagt 3300
aaactctatc tca 3313

<210> 390
<211> 916
<212> PRT
<213> Homo sapiens

<400> 390

Met Ile Pro Ala Arg Leu His Arg Asp Tyr Lys Gly Leu Val Leu
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Leu Gly Ile Leu Leu Gly Thr Leu Trp Glu Thr Gly Cys Thr Gln
20 25 30

Ile Arg Tyr Ser Val Pro Glu Glu Leu Glu Lys Gly Ser Arg Val
35 40 45

Gly Asp Ile Ser Arg Asp Leu Gly Leu Glu Pro Arg Glu Leu Ala
50 55 60

Glu Arg Gly Val Arg Ile Ile Pro Arg Gly Arg Thr Gln Leu Phe
65 70 75

Ala Leu Asn Pro Arg Ser Gly Ser Leu Val Thr Ala Gly Arg Ile
80 85 90

Asp Arg Glu Glu Leu Cys Met Gly Ala Ile Lys Cys Gln Leu Asn
95 100 105

Leu Asp Ile Leu Met Glu Asp Lys Val Lys Ile Tyr Gly Val Glu
110 115 120

Val Glu Val Arg Asp Ile Asn Asp Asn Ala Pro Tyr Phe Arg Glu
125 130 135

Ser Glu Leu Glu Ile Lys Ile Ser Glu Asn Ala Ala Thr Glu Met
140 145 150

Arg Phe Pro Leu Pro His Ala Trp Asp Pro Asp Ile Gly Lys Asn
155 160 165

Ser Leu Gln Ser Tyr Glu Leu Ser Pro Asn Thr His Phe Ser Leu
170 175 180

Ile Val Gln Asn Gly Ala Asp Gly Ser Lys Tyr Pro Glu Leu Val
185 190 195

Leu Lys Arg Ala Leu Asp Arg Glu Glu Lys Ala Ala His His Leu
200 205 210

Val Leu Thr Ala Ser Asp Gly Gly Asp Pro Val Arg Thr Gly Thr
215 220 225

Ala Arg Ile Arg Val Met Val Leu Asp Ala Asn Asp Asn Ala Pro
230 235 240

Ala Phe Ala Gln Pro Glu Tyr Arg Ala Ser Val Pro Glu Asn Leu
245 250 255

Ala Leu Gly Thr Gln Leu Leu Val Val Asn Ala Thr Asp Pro Asp
260 265 270

Glu Gly Val Asn Ala Glu Val Arg Tyr Ser Phe Arg Tyr Val Asp
275 280 285

Asp Lys Ala Ala Gln Val Phe Lys Leu Asp Cys Asn Ser Gly Thr
290 295 300

Ile Ser Thr Ile Gly Glu Leu Asp His Glu Glu Ser Gly Phe Tyr
305 310 315

Gln Met Glu Val Gln Ala Met Asp Asn Ala Gly Tyr Ser Ala Arg
320 325 330

Ala Lys Val Leu Ile Thr Val Leu Asp Val Asn Asp Asn Ala Pro
335 340 345

Glu Val Val Leu Thr Ser Leu Ala Ser Ser Val Pro Glu Asn Ser
350 355 360

Pro Arg Gly Thr Leu Ile Ala Leu Leu Asn Val Asn Asp Gln Asp
365 370 375

Ser Glu Glu Asn Gly Gln Val Ile Cys Phe Ile Gln Gly Asn Leu
380 385 390

Pro Phe Lys Leu Glu Lys Ser Tyr Gly Asn Tyr Tyr Ser Leu Val
395 400 405

Thr Asp Ile Val Leu Asp Arg Glu Gln Val Pro Ser Tyr Asn Ile
410 415 420

Thr Val Thr Ala Thr Asp Arg Gly Thr Pro Pro Leu Ser Thr Glu
425 430 435

Thr His Ile Ser Leu Asn Val Ala Asp Thr Asn Asp Asn Pro Pro
440 445 450

Val Phe Pro Gln Ala Ser Tyr Ser Ala Tyr Ile Pro Glu Asn Asn
455 460 465

Pro Arg Gly Val Ser Leu Val Ser Val Thr Ala His Asp Pro Asp
470 475 480

Cys Glu Glu Asn Ala Gln Ile Thr Tyr Ser Leu Ala Glu Asn Thr
485 490 495

Ile Gln Gly Ala Ser Leu Ser Ser Tyr Val Ser Ile Asn Ser Asp
500 505 510

Thr Gly Val Leu Tyr Ala Leu Ser Ser Phe Asp Tyr Glu Gln Phe
515 520 525

Arg Asp Leu Gln Val Lys Val Met Ala Arg Asp Asn Gly His Pro
530 535 540

Pro Leu Ser Ser Asn Val Ser Leu Ser Leu Phe Val Leu Asp Gln
545 550 555

Asn Asp Asn Ala Pro Glu Ile Leu Tyr Pro Ala Leu Pro Thr Asp
560 565 570

Gly Ser Thr Gly Val Glu Leu Ala Pro Arg Ser Ala Glu Pro Gly
575 580 585

Tyr Leu Val Thr Lys Val Val Ala Val Asp Arg Asp Ser Gly Gln
590 595 600

Asn Ala Trp Leu Ser Tyr Arg Leu Leu Lys Ala Ser Glu Pro Gly
605 610 615

Leu Phe Ser Val Gly Leu His Thr Gly Glu Val Arg Thr Ala Arg
620 625 630

Ala Leu Leu Asp Arg Asp Ala Leu Lys Gln Ser Leu Val Val Ala
635 640 645

Val Gln Asp His Gly Gln Pro Pro Leu Ser Ala Thr Val Thr Leu
650 655 660

Thr Val Ala Val Ala Asp Ser Ile Pro Gln Val Leu Ala Asp Leu
665 670 675

Gly Ser Leu Glu Ser Pro Ala Asn Ser Glu Thr Ser Asp Leu Thr
680 685 690

Leu Tyr Leu Val Val Ala Val Ala Val Ser Cys Val Phe Leu
695 700 705

Ala Phe Val Ile Leu Leu Ala Leu Arg Leu Arg Arg Trp His
710 715 720

Lys Ser Arg Leu Leu Gln Ala Ser Gly Gly Gly Leu Thr Gly Ala
725 730 735

Pro Ala Ser His Phe Val Gly Val Asp Gly Val Gln Ala Phe Leu
740 745 750

Gln Thr Tyr Ser His Glu Val Ser Leu Thr Thr Asp Ser Arg Lys
755 760 765

Ser His Leu Ile Phe Pro Gln Pro Asn Tyr Ala Asp Met Leu Val
770 775 780

Ser Gln Glu Ser Phe Glu Lys Ser Glu Pro Leu Leu Leu Ser Gly
785 790 795

Asp Ser Val Phe Ser Lys Asp Ser His Gly Leu Ile Glu Val Ser
800 805 810

Leu Tyr Gln Ile Phe Phe Leu Phe Phe Phe Asn Cys Ser Val Ser
815 820 825

Gln Ala Gly Val Gln Arg Tyr Asp His Ser Ser Leu Arg Pro Gln
830 835 840

Thr Pro Arg Leu Lys Gln Leu Ser His Leu Cys Leu Arg Cys Asn
845 850 855

Arg Asp Tyr Arg Cys Lys Pro Pro Thr Val Cys Leu Ser Ile Tyr
860 865 870

Leu Ser Ile Tyr Leu Ser Ile Tyr Leu Ser Ile Tyr Leu Leu Leu
875 880 885

Ser Cys Thr Asp Gly Ser Leu Thr Pro Val Ile Pro Val Leu Trp
890 895 900

Glu Ala Glu Ala Gly Gly Ser Pro Glu Val Gly Ser Leu Arg Pro
905 910 915

Ala

<210> 391

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 391

tccgtctctg tgaaccggccc cac 23

<210> 392

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 392

ctcgggcgca ttgtcggttct ggtc 24

<210> 393

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 393

ccgactgtga aagagaacgc cccagatcca cttgttcccc 40

<210> 394

<211> 999

<212> DNA

<213> Homo sapiens

<400> 394

cccaggctct agtgcaggag gagaaggagg aggagcagga ggtggagatt 50

cccagttaaa aggctccaga atcgtgtacc aggcagagaa ctgaagtact 100

ggggcctcct ccactggtc cgaatcagta ggtgaccccg cccctggatt 150
ctggaagacc tcaccatggg acgccccga cctcgtgcgg ccaagacgtg 200
gatgttcctg ctcttgctgg ggggagcctg ggcaggacac tccagggcac 250
aggaggacaa ggtgctgggg ggtcatgagt gccaaaccca ttgcagccct 300
tggcaggcgg ctttgttcca gggccagcaa ctactctgtg gcggtgtcct 350
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acacagtacg cctgggagac cacagcctac agaataaaga tggcccagag 450
caagaaatac ctgtggttca gtccatccca caccctgct acaacagcag 500
cgatgtggag gaccacaacc atgatctgat gcttcttcaa ctgcgtgacc 550
aggcatccct ggggtccaaa gtgaagccca tcagcctggc agatcattgc 600
acccagcctg gccagaagtg caccgtctca ggctggggca ctgtcaccag 650
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ttccccagaa gaagtgtgag gatgcttacc cggggcagat cacagatggc 750
atggtctgtg caggcagcag caaaggggct gacacgtgcc agggcgattc 800
tggaggcccc ctgggtgtg atggtgact ccagggcatc acatcctggg 850
gctcagaccc ctgtgggagg tccgacaaac ctggcgtcta taccaacatc 900
tgccgctacc tggactggat caagaagatc ataggcagca agggctgatt 950
ctaggataag cactagatct cccttaataa actcacaact ctctggttc 999

<210> 395
<211> 260
<212> PRT
<213> Homo sapiens

<400> 395
Met Gly Arg Pro Arg Pro Arg Ala Ala Lys Thr Trp Met Phe Leu
1 5 10 15
Leu Leu Leu Gly Gly Ala Trp Ala Gly His Ser Arg Ala Gln Glu
20 25 30
Asp Lys Val Leu Gly Gly His Glu Cys Gln Pro His Ser Gln Pro
35 40 45
Trp Gln Ala Ala Leu Phe Gln Gly Gln Gln Leu Leu Cys Gly
50 55 60
Val Leu Val Gly Gly Asn Trp Val Leu Thr Ala Ala His Cys Lys
65 70 75

Lys	Pro	Lys	Tyr	Thr	Val	Arg	Leu	Gly	Asp	His	Ser	Leu	Gln	Asn
					80				85					90
Lys	Asp	Gly	Pro	Glu	Gln	Glu	Ile	Pro	Val	Val	Gln	Ser	Ile	Pro
					95				100					105
His	Pro	Cys	Tyr	Asn	Ser	Ser	Asp	Val	Glu	Asp	His	Asn	His	Asp
					110				115					120
Leu	Met	Leu	Leu	Gln	Leu	Arg	Asp	Gln	Ala	Ser	Leu	Gly	Ser	Lys
					125				130					135
Val	Lys	Pro	Ile	Ser	Leu	Ala	Asp	His	Cys	Thr	Gln	Pro	Gly	Gln
					140				145					150
Lys	Cys	Thr	Val	Ser	Gly	Trp	Gly	Thr	Val	Thr	Ser	Pro	Arg	Glu
					155				160					165
Asn	Phe	Pro	Asp	Thr	Leu	Asn	Cys	Ala	Glu	Val	Lys	Ile	Phe	Pro
					170				175					180
Gln	Lys	Lys	Cys	Glu	Asp	Ala	Tyr	Pro	Gly	Gln	Ile	Thr	Asp	Gly
					185				190					195
Met	Val	Cys	Ala	Gly	Ser	Ser	Lys	Gly	Ala	Asp	Thr	Cys	Gln	Gly
					200				205					210
Asp	Ser	Gly	Gly	Pro	Leu	Val	Cys	Asp	Gly	Ala	Leu	Gln	Gly	Ile
					215				220					225
Thr	Ser	Trp	Gly	Ser	Asp	Pro	Cys	Gly	Arg	Ser	Asp	Lys	Pro	Gly
					230				235					240
Val	Tyr	Thr	Asn	Ile	Cys	Arg	Tyr	Leu	Asp	Trp	Ile	Lys	Lys	Ile
					245				250					255
Ile	Gly	Ser	Lys	Gly										
					260									

<210> 396

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 396

cagcctacag aataaagatg gccc 24

<210> 397

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 397

ggtgcaatga tctgccaggc tgat 24

<210> 398

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 398

agaaaataacct gtgggttcagt ccatcccaa cccctgctac aacagcag 48

<210> 399

<211> 2236

<212> DNA

<213> Homo sapiens

<400> 399

ggcgccgggtg caccggggcg gg gctgagcgcc tcctgcggcc cggcctgcgc 50

gccccggccc gccgcgcgc ccacgccccca accccggccc gcgcccccta 100

gccccccgccc gggcccgccg ccgcgcggc gcccaggta gcgctccgcc 150

cgccgcgagg ccccgccccg gcccggcccc gccccggccc ggccggcg 200

gaaaccggggc ggattcctcg cgcgtcaaac cacctgatcc cataaaacat 250

tcatcctccc ggccgcgc gctgcgagcg ccccgccagt ccgcgcgc 300

gccgcgcctcg ccctgtgcgc cctgcgcgc ctgcgcaccc gggcccgag 350

cccagccaga gccggggcgga gcggagcgcg ccgagcctcg tcccgcggcc 400

gggcccgggc cggcccgtag cggccgcgc tggatgcgga cccggccgcg 450

gggagacggg cgcccgcccc gaaacgactt tcagtcctcg acgcgcggc 500

cccaaccct acgatgaaga gggcgccgc tggagggagc cggctgctgg 550

catgggtgt gtggctgcag gcctggcagg tggcagcccc atgcccaggt 600

gcctgcgtat gctacaatga gcccagaatg acgacaagct gccccagca 650

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tggcccaacc tcaccatcct gtggctgcac tcgaatgtgc tggcccgaat 800

tgatgcggct gccttcactg gcctggccct cctggagcag ctggacactca 850

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ccgccaagcc agccgggcgg ccgaccctg gggcaggcca ggccaggtcc 2050
tccctgatgg acgcctgccc cccgccaccc ccatctccac cccatcatgt 2100
ttacagggtt cggcggcagc gtttggcca gaacggcc tcccacccag 2150
atcgcggtat atagagatat gcattttatt ttacttgcgt aaaaatatcg 2200
gacgacgtgg aataaagagc tctttctta aaaaaa 2236

<210> 400

<211> 473

<212> PRT

<213> Homo sapiens

<400> 400

Met Lys Arg Ala Ser Ala Gly Gly Ser Arg Leu Leu Ala Trp Val
1 5 10 15

Leu Trp Leu Gln Ala Trp Gln Val Ala Ala Pro Cys Pro Gly Ala
20 25 30

Cys Val Cys Tyr Asn Glu Pro Lys Val Thr Thr Ser Cys Pro Gln
35 40 45

Gln Gly Leu Gln Ala Val Pro Val Gly Ile Pro Ala Ala Ser Gln
50 55 60

Arg Ile Phe Leu His Gly Asn Arg Ile Ser His Val Pro Ala Ala
65 70 75

Ser Phe Arg Ala Cys Arg Asn Leu Thr Ile Leu Trp Leu His Ser
80 85 90

Asn Val Leu Ala Arg Ile Asp Ala Ala Ala Phe Thr Gly Leu Ala
95 100 105

Leu Leu Glu Gln Leu Asp Leu Ser Asp Asn Ala Gln Leu Arg Ser
110 115 120

Val Asp Pro Ala Thr Phe His Gly Leu Gly Arg Leu His Thr Leu
125 130 135

His Leu Asp Arg Cys Gly Leu Gln Glu Leu Gly Pro Gly Leu Phe
140 145 150

Arg Gly Leu Ala Ala Leu Gln Tyr Leu Tyr Leu Gln Asp Asn Ala
155 160 165

Leu Gln Ala Leu Pro Asp Asp Thr Phe Arg Asp Leu Gly Asn Leu
170 175 180

Thr His Leu Phe Leu His Gly Asn Arg Ile Ser Ser Val Pro Glu
185 190 195

Arg Ala Phe Arg Gly Leu His Ser Leu Asp Arg Leu Leu Leu His
200 205 210

Gln Asn Arg Val Ala His Val His Pro His Ala Phe Arg Asp Leu
215 220 225

Gly Arg Leu Met Thr Leu Tyr Leu Phe Ala Asn Asn Leu Ser Ala
230 235 240

Leu Pro Thr Glu Ala Leu Ala Pro Leu Arg Ala Leu Gln Tyr Leu
245 250 255

Arg Leu Asn Asp Asn Pro Trp Val Cys Asp Cys Arg Ala Arg Pro
260 265 270

Leu	Trp	Ala	Trp	Leu	Gln	Lys	Phe	Arg	Gly	Ser	Ser	Ser	Glu	Val
				275					280					285
Pro	Cys	Ser	Leu	Pro	Gln	Arg	Leu	Ala	Gly	Arg	Asp	Leu	Lys	Arg
	290							295						300
Leu	Ala	Ala	Asn	Asp	Leu	Gln	Gly	Cys	Ala	Val	Ala	Thr	Gly	Pro
			305						310					315
Tyr	His	Pro	Ile	Trp	Thr	Gly	Arg	Ala	Thr	Asp	Glu	Glu	Pro	Leu
				320					325					330
Gly	Leu	Pro	Lys	Cys	Cys	Gln	Pro	Asp	Ala	Ala	Asp	Lys	Ala	Ser
			335					340						345
Val	Leu	Glu	Pro	Gly	Arg	Pro	Ala	Ser	Ala	Gly	Asn	Ala	Leu	Lys
				350				355						360
Gly	Arg	Val	Pro	Pro	Gly	Asp	Ser	Pro	Pro	Gly	Asn	Gly	Ser	Gly
				365				370						375
Pro	Arg	His	Ile	Asn	Asp	Ser	Pro	Phe	Gly	Thr	Leu	Pro	Gly	Ser
				380				385						390
Ala	Glu	Pro	Pro	Leu	Thr	Ala	Val	Arg	Pro	Glu	Gly	Ser	Glu	Pro
				395				400						405
Pro	Gly	Phe	Pro	Thr	Ser	Gly	Pro	Arg	Arg	Arg	Pro	Gly	Cys	Ser
				410				415						420
Arg	Lys	Asn	Arg	Thr	Arg	Ser	His	Cys	Arg	Leu	Gly	Gln	Ala	Gly
				425				430						435
Ser	Gly	Gly	Gly	Gly	Thr	Gly	Asp	Ser	Glu	Gly	Ser	Gly	Ala	Leu
				440				445						450
Pro	Ser	Leu	Thr	Cys	Ser	Leu	Thr	Pro	Leu	Gly	Leu	Ala	Leu	Val
				455				460						465
Leu	Trp	Thr	Val	Leu	Gly	Pro	Cys							
				470										

<210> 401

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 401

tggctgccct gcagtagccctc tacc 24

<210> 402

<211> 24

<212> DNA

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tcaggtctac atcgaagtcc tggatgtcaa cgataatgcc cctgaatttg 900
agcagccttt ctataagatg cagatctctg aggacagtcc gtaggcttc 950
ctgggtgtga aggtctctgc cacggatgta gacacaggag tcaacggaga 1000
gatttcstat tcactttcc aagcttcaga agagattggc aaaacctta 1050
agatcaatcc cttgacagga gaaattgaac taaaaaaaca actcgatttc 1100
gaaaaacttc agtcctatga agtcaatatt gaggcaagag atgctggAAC 1150
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atgccccaga agttaccatg tctgcattta ccagccaat acctgagaac 1250
gcccctgaaa ctgtgggtgc actttcagt gttcagatc ttgattcagg 1300
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<210> 405

<211> 798

<212> PRT

<213> Homo sapiens

<400> 405

Met	Glu	Ala	Ser	Gly	Lys	Leu	Ile	Cys	Arg	Gln	Arg	Gln	Val	Leu
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Phe	Ser	Phe	Leu	Leu	Gly	Leu	Ser	Leu	Ala	Gly	Ala	Ala	Glu	
			20					25					30	

Pro	Arg	Ser	Tyr	Ser	Val	Val	Glu	Glu	Thr	Glu	Gly	Ser	Ser	Phe
					35				40					45

Val	Thr	Asn	Leu	Ala	Lys	Asp	Leu	Gly	Leu	Glu	Gln	Arg	Glu	Phe
					50				55					60

Ser	Arg	Arg	Gly	Val	Arg	Val	Val	Ser	Arg	Gly	Asn	Lys	Leu	His
					65				70					75

Leu	Gln	Leu	Asn	Gln	Glu	Thr	Ala	Asp	Leu	Leu	Leu	Asn	Glu	Lys
					80				85					90

Leu	Asp	Arg	Glu	Asp	Leu	Cys	Gly	His	Thr	Glu	Pro	Cys	Val	Leu
					95				100					105

Arg	Phe	Gln	Val	Leu	Leu	Glu	Ser	Pro	Phe	Glu	Phe	Phe	Gln	Ala
					110				115					120

Glu	Leu	Gln	Val	Ile	Asp	Ile	Asn	Asp	His	Ser	Pro	Val	Phe	Leu
					125				130					135

Asp	Lys	Gln	Met	Leu	Val	Lys	Val	Ser	Glu	Ser	Ser	Pro	Pro	Gly
					140				145					150

Thr Thr Phe Pro Leu Lys Asn Ala Glu Asp Leu Asp Val Gly Gln
155 160 165

Asn Asn Ile Glu Asn Tyr Ile Ile Ser Pro Asn Ser Tyr Phe Arg
170 175 180

Val Leu Thr Arg Lys Arg Ser Asp Gly Arg Lys Tyr Pro Glu Leu
185 190 195

Val Leu Asp Lys Ala Leu Asp Arg Glu Glu Ala Glu Leu Arg
200 205 210

Leu Thr Leu Thr Ala Leu Asp Gly Gly Ser Pro Pro Arg Ser Gly
215 220 225

Thr Ala Gln Val Tyr Ile Glu Val Leu Asp Val Asn Asp Asn Ala
230 235 240

Pro Glu Phe Glu Gln Pro Phe Tyr Arg Val Gln Ile Ser Glu Asp
245 250 255

Ser Pro Val Gly Phe Leu Val Val Lys Val Ser Ala Thr Asp Val
260 265 270

Asp Thr Gly Val Asn Gly Glu Ile Ser Tyr Ser Leu Phe Gln Ala
275 280 285

Ser Glu Glu Ile Gly Lys Thr Phe Lys Ile Asn Pro Leu Thr Gly
290 295 300

Glu Ile Glu Leu Lys Lys Gln Leu Asp Phe Glu Lys Leu Gln Ser
305 310 315

Tyr Glu Val Asn Ile Glu Ala Arg Asp Ala Gly Thr Phe Ser Gly
320 325 330

Lys Cys Thr Val Leu Ile Gln Val Ile Asp Val Asn Asp His Ala
335 340 345

Pro Glu Val Thr Met Ser Ala Phe Thr Ser Pro Ile Pro Glu Asn
350 355 360

Ala Pro Glu Thr Val Val Ala Leu Phe Ser Val Ser Asp Leu Asp
365 370 375

Ser Gly Glu Asn Gly Lys Ile Ser Cys Ser Ile Gln Glu Asp Leu
380 385 390

Pro Phe Leu Leu Lys Ser Ala Glu Asn Phe Tyr Thr Leu Leu Thr
395 400 405

Glu Arg Pro Leu Asp Arg Glu Ser Arg Ala Glu Tyr Asn Ile Thr
410 415 420

Ile Thr Val Thr Asp Leu Gly Thr Pro Met Leu Ile Thr Gln Leu
425 430 435

Asn Met Thr Val Leu Ile Ala Asp Val Asn Asp Asn Ala Pro Ala
440 445 450

Phe Thr Gln Thr Ser Tyr Thr Leu Phe Val Arg Glu Asn Asn Ser
455 460 465

Pro Ala Leu His Ile Arg Ser Val Ser Ala Thr Asp Arg Asp Ser
470 475 480

Gly Thr Asn Ala Gln Val Thr Tyr Ser Leu Leu Pro Pro Gln Asp
485 490 495

Pro His Leu Pro Leu Thr Ser Leu Val Ser Ile Asn Ala Asp Asn
500 505 510

Gly His Leu Phe Ala Leu Arg Ser Leu Asp Tyr Glu Ala Leu Gln
515 520 525

Gly Phe Gln Phe Arg Val Gly Ala Ser Asp His Gly Ser Pro Ala
530 535 540

Leu Ser Ser Glu Ala Leu Val Arg Val Val Val Leu Asp Ala Asn
545 550 555

Asp Asn Ser Pro Phe Val Leu Tyr Pro Leu Gln Asn Gly Ser Ala
560 565 570

Pro Cys Thr Glu Leu Val Pro Arg Ala Ala Glu Pro Gly Tyr Leu
575 580 585

Val Thr Lys Val Val Ala Val Asp Gly Asp Ser Gly Gln Asn Ala
590 595 600

Trp Leu Ser Tyr Gln Leu Leu Lys Ala Thr Glu Leu Gly Leu Phe
605 610 615

Gly Val Trp Ala His Asn Gly Glu Val Arg Thr Ala Arg Leu Leu
620 625 630

Ser Glu Arg Asp Ala Ala Lys His Arg Leu Val Val Leu Val Lys
635 640 645

Asp Asn Gly Glu Pro Pro Arg Ser Ala Thr Ala Thr Leu His Val
650 655 660

Leu Leu Val Asp Gly Phe Ser Gln Pro Tyr Leu Pro Leu Pro Glu
665 670 675

Ala Ala Pro Thr Gln Ala Gln Ala Asp Leu Leu Thr Val Tyr Leu
680 685 690

Val Val Ala Leu Ala Ser Val Ser Ser Leu Phe Leu Phe Ser Val
695 700 705

Leu Leu Phe Val Ala Val Arg Leu Cys Arg Arg Ser Arg Ala Ala
710 715 720

Ser Val Gly Arg Cys Leu Val Pro Glu Gly Pro Leu Pro Gly His
725 730 735

Leu Val Asp Met Ser Gly Thr Arg Thr Leu Ser Gln Ser Tyr Gln
740 745 750

Tyr Glu Val Cys Leu Ala Gly Gly Ser Gly Thr Asn Glu Phe Lys
755 760 765

Phe Leu Lys Pro Ile Ile Pro Asn Phe Pro Pro Gln Cys Pro Gly
770 775 780

Lys Glu Ile Gln Gly Asn Ser Thr Phe Pro Asn Asn Phe Gly Phe
785 790 795

Asn Ile Gln

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<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 406

ctgagaacgc gcctgaaaact gtg 23

<210> 407

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 407

agcggttgtca ttgacatcgg cg 22

<210> 408

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 408

ttagttgctc cattcaggag gatctaccct tcctcctgaa atccgcggaa 50

<210> 409

<211> 1379

<212> DNA

<213> Homo sapiens

<400> 409

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gcgttagccgt gcgccgattg cctctcgccc tgggaatgg tcccgctgc 100
cggtcgacga ccgccccgca tcatgcggct cctcggtgg tggcaagtat 150
tgctgtgggt gctgggactt cccgtccgca gcgtggaggt tgcagaggaa 200
agtggtcgttatgttcaga ggagcagcgt gtcaccctc tccaggtgg 250
ggctgtgtac ctgggtgagg aggagctcct gcatgaccgg atgggccagg 300
acagggcagc agaagaggcc aatgcgggtc tggggctgga caccaagggc 350
gatcacatgg tgatgctgtc tgtgattcct gggaaagctg aggacaaagt 400
gagttcagag cctagcggcg tcacctgtgg tgctggagga gcggaggact 450
caaggtgcaa cgtccgagag agcctttct ctctggatgg cgctggagca 500
cacttccctg acagagaaga ggagtattac acagagccag aagtggcgga 550
atctgacgca gccccgacag aggactccaa taacactgaa agtctgaaat 600
ccccaaaggt gaactgtgag gagagaaaca ttacaggatt agaaaatttc 650
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caataagcaa atgcaaaaat attcaatag 1379

<211> 360
<212> PRT
<213> Homo sapiens

<400> 410

Met	Val	Pro	Ala	Ala	Gly	Arg	Arg	Pro	Pro	Arg	Val	Met	Arg	Leu
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Leu	Gly	Trp	Trp	Gln	Val	Leu	Leu	Trp	Val	Leu	Gly	Leu	Pro	Val
					20				25			30		
Arg	Gly	Val	Glu	Val	Ala	Glu	Glu	Ser	Gly	Arg	Leu	Trp	Ser	Glu
					35				40			45		
Glu	Gln	Pro	Ala	His	Pro	Leu	Gln	Val	Gly	Ala	Val	Tyr	Leu	Gly
					50				55			60		
Glu	Glu	Glu	Leu	Leu	His	Asp	Pro	Met	Gly	Gln	Asp	Arg	Ala	Ala
					65				70			75		
Glu	Glu	Ala	Asn	Ala	Val	Leu	Gly	Leu	Asp	Thr	Gln	Gly	Asp	His
					80				85			90		
Met	Val	Met	Leu	Ser	Val	Ile	Pro	Gly	Glu	Ala	Glu	Asp	Lys	Val
					95				100			105		
Ser	Ser	Glu	Pro	Ser	Gly	Val	Thr	Cys	Gly	Ala	Gly	Gly	Ala	Glu
					110				115			120		
Asp	Ser	Arg	Cys	Asn	Val	Arg	Glu	Ser	Leu	Phe	Ser	Leu	Asp	Gly
					125				130			135		
Ala	Gly	Ala	His	Phe	Pro	Asp	Arg	Glu	Glu	Glu	Tyr	Tyr	Thr	Glu
					140				145			150		
Pro	Glu	Val	Ala	Glu	Ser	Asp	Ala	Ala	Pro	Thr	Glu	Asp	Ser	Asn
					155				160			165		
Asn	Thr	Glu	Ser	Leu	Lys	Ser	Pro	Lys	Val	Asn	Cys	Glu	Glu	Arg
					170				175			180		
Asn	Ile	Thr	Gly	Leu	Glu	Asn	Phe	Thr	Leu	Lys	Ile	Leu	Asn	Met
					185				190			195		
Ser	Gln	Asp	Leu	Met	Asp	Phe	Leu	Asn	Pro	Asn	Gly	Ser	Asp	Cys
					200				205			210		
Thr	Leu	Val	Leu	Phe	Tyr	Thr	Pro	Trp	Cys	Arg	Phe	Ser	Ala	Ser
					215				220			225		
Leu	Ala	Pro	His	Phe	Asn	Ser	Leu	Pro	Arg	Ala	Phe	Pro	Ala	Leu
					230				235			240		
His	Phe	Leu	Ala	Leu	Asp	Ala	Ser	Gln	His	Ser	Ser	Leu	Ser	Thr
					245				250			255		
Arg	Phe	Gly	Thr	Val	Ala	Val	Pro	Asn	Ile	Leu	Leu	Phe	Gln	Gly

260

265

270

Ala Lys Pro Met Ala Arg Phe Asn His Thr Asp Arg Thr Leu Glu
275 280 285

Thr Leu Lys Ile Phe Ile Phe Asn Gln Thr Gly Ile Glu Ala Lys
290 295 300

Lys Asn Val Val Val Thr Gln Ala Asp Gln Ile Gly Pro Leu Pro
305 310 315

Ser Thr Leu Ile Lys Ser Val Asp Trp Leu Leu Val Phe Ser Leu
320 325 330

Phe Phe Leu Ile Ser Phe Ile Met Tyr Ala Thr Ile Arg Thr Glu
335 340 345

Ser Ile Arg Trp Leu Ile Pro Gly Gln Glu Gln Glu His Val Glu
350 355 360

<210> 411

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 411

cacagagcc aagaatggcg aatc 24

<210> 412

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 412

ccacatgttc ctgctttgt cctgg 25

<210> 413

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 413

cggttagtgac tgtactctag tcctgttta caccccgtag tgccg 45

<210> 414

<211> 1196

<212> DNA

<213> Homo sapiens

<400> 414
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gaatcttgta gaaatattca aactaataaa atcatgaata ttttaa 1196

<210> 415
<211> 295
<212> PRT
<213> Homo sapiens

<400> 415
Met Leu Gln Gly Pro Gly Ser Leu Leu Leu Leu Phe Leu Ala Ser

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His Cys Cys Leu Gly Ser Ala Arg Gly Leu Phe Leu Phe Gly Gln			
20	25	30	
Pro Asp Phe Ser Tyr Lys Arg Ser Asn Cys Lys Pro Ile Pro Val			
35	40	45	
Asn Leu Gln Leu Cys His Gly Ile Glu Tyr Gln Asn Met Arg Leu			
50	55	60	
Pro Asn Leu Leu Gly His Glu Thr Met Lys Glu Val Leu Glu Gln			
65	70	75	
Ala Gly Ala Trp Ile Pro Leu Val Met Lys Gln Cys His Pro Asp			
80	85	90	
Thr Lys Lys Phe Leu Cys Ser Leu Phe Ala Pro Val Cys Leu Asp			
95	100	105	
Asp Leu Asp Glu Thr Ile Gln Pro Cys His Ser Leu Cys Val Gln			
110	115	120	
Val Lys Asp Arg Cys Ala Pro Val Met Ser Ala Phe Gly Phe Pro			
125	130	135	
Trp Pro Asp Met Leu Glu Cys Asp Arg Phe Pro Gln Asp Asn Asp			
140	145	150	
Leu Cys Ile Pro Leu Ala Ser Ser Asp His Leu Leu Pro Ala Thr			
155	160	165	
Glu Glu Ala Pro Lys Val Cys Glu Ala Cys Lys Asn Lys Asn Asp			
170	175	180	
Asp Asp Asn Asp Ile Met Glu Thr Leu Cys Lys Asn Asp Phe Ala			
185	190	195	
Leu Lys Ile Lys Val Lys Glu Ile Thr Tyr Ile Asn Arg Asp Thr			
200	205	210	
Lys Ile Ile Leu Glu Thr Lys Ser Lys Thr Ile Tyr Lys Leu Asn			
215	220	225	
Gly Val Ser Glu Arg Asp Leu Lys Lys Ser Val Leu Trp Leu Lys			
230	235	240	
Asp Ser Leu Gln Cys Thr Cys Glu Glu Met Asn Asp Ile Asn Ala			
245	250	255	
Pro Tyr Leu Val Met Gly Gln Lys Gln Gly Gly Glu Leu Val Ile			
260	265	270	
Thr Ser Val Lys Arg Trp Gln Lys Gly Gln Arg Glu Phe Lys Arg			
275	280	285	
Ile Ser Arg Ser Ile Arg Lys Leu Gln Cys			

<210> 416
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 416
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<210> 417
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 417
cctcacaggt gcactgcaag ctgtc 25

<210> 418
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 418
cttttcctt ttggccagcc cgacttctcc tacaaggcga gaattgc 47

<210> 419
<211> 1830
<212> DNA
<213> Homo sapiens

<400> 419
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<210> 420
<211> 560
<212> PRT
<213> Homo sapiens

<400> 420
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Ala Leu Cys Ala Gln Arg Gly His Arg Thr Tyr Ala Arg Arg Trp
20 25 30
Val Phe Leu Leu Ala Ile Ser Leu Leu Asn Cys Ser Asn Ala Thr
35 40 45
Leu Trp Leu Ser Phe Ala Pro Val Ala Asp Val Ile Ala Glu Asp
50 55 60
Leu Val Leu Ser Met Glu Gln Ile Asn Trp Leu Ser Leu Val Tyr
65 70 75
Leu Val Val Ser Thr Pro Phe Gly Val Ala Ala Ile Trp Ile Leu
80 85 90
Asp Ser Val Gly Leu Arg Ala Ala Thr Ile Leu Gly Ala Trp Leu
95 100 105
Asn Phe Ala Gly Ser Val Leu Arg Met Val Pro Cys Met Val Val
110 115 120
Gly Thr Gln Asn Pro Phe Ala Phe Leu Met Gly Gly Gln Ser Leu
125 130 135

Cys Ala Leu Ala Gln Ser Leu Val Ile Phe Ser Pro Ala Lys Leu
140 145 150
Ala Ala Leu Trp Phe Pro Glu His Gln Arg Ala Thr Ala Asn Met
155 160 165
Leu Ala Thr Met Ser Asn Pro Leu Gly Val Leu Val Ala Asn Val
170 175 180
Leu Ser Pro Val Leu Val Lys Gly Glu Asp Ile Pro Leu Met
185 190 195
Leu Gly Val Tyr Thr Ile Pro Ala Gly Val Val Cys Leu Leu Ser
200 205 210
Thr Ile Cys Leu Trp Glu Ser Val Pro Pro Thr Pro Pro Ser Ala
215 220 225
Gly Ala Ala Ser Ser Thr Ser Glu Lys Phe Leu Asp Gly Leu Lys
230 235 240
Leu Gln Leu Met Trp Asn Lys Ala Tyr Val Ile Leu Ala Val Cys
245 250 255

Leu Gly Gly Met Ile Gly Ile Ser Ala Ser Phe Ser Ala Leu Leu
260 265 270

Glu Gln Ile Leu Cys Ala Ser Gly His Ser Ser Gly Phe Ser Gly
275 280 285

Leu Cys Gly Ala Leu Phe Ile Thr Phe Gly Ile Leu Gly Ala Leu
290 295 300

Ala Leu Gly Pro Tyr Val Asp Arg Thr Lys His Phe Thr Glu Ala
305 310 315

Thr Lys Ile Gly Leu Cys Leu Phe Ser Leu Ala Cys Val Pro Phe
320 325 330

Ala Leu Val Ser Gln Leu Gln Gly Gln Thr Leu Ala Leu Ala Ala
335 340 345

Thr Cys Ser Leu Leu Gly Leu Phe Gly Phe Ser Val Gly Pro Val
350 355 360

Ala Met Glu Leu Ala Val Glu Cys Ser Phe Pro Val Gly Glu Gly
365 370 375

Ala Ala Thr Gly Met Ile Phe Val Leu Gly Gln Ala Glu Gly Ile
380 385 390

Leu Ile Met Leu Ala Met Thr Ala Leu Thr Val Arg Arg Ser Glu
395 400 405

Pro Ser Leu Ser Thr Cys Gln Gln Gly Glu Asp Pro Leu Asp Trp
410 415 420

Thr Val Ser Leu Leu Met Ala Gly Leu Cys Thr Phe Phe Ser
425 430 435

Cys Ile Leu Ala Val Phe Phe His Thr Pro Tyr Arg Arg Leu Gln
440 445 450

Ala Glu Ser Gly Glu Pro Pro Ser Thr Arg Asn Ala Val Gly Gly
455 460 465

Ala Asp Ser Gly Pro Gly Val Asp Arg Gly Gly Ala Gly Arg Ala
470 475 480

Gly Val Leu Gly Pro Ser Thr Ala Thr Pro Glu Cys Thr Ala Arg
485 490 495

Gly Ala Ser Leu Glu Asp Pro Arg Gly Pro Gly Ser Pro His Pro
500 505 510

Ala Cys His Arg Ala Thr Pro Arg Ala Gln Gly Pro Ala Ala Thr
515 520 525

Asp Ala Pro Ser Arg Pro Gly Arg Leu Ala Gly Arg Val Gln Ala
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Ser Arg Phe Ile Asp Pro Ala Gly Ser His Ser Ser Phe Ser Ser
545 550 555

Pro Trp Val Ile Thr
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<220>
<223> Synthetic oligonucleotide probe

<400> 421
agcttctcag ccctcctgga gcag 24

<210> 422
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<212> DNA
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<220>
<223> Synthetic oligonucleotide probe

<400> 422
cgggtcaata aacctggacg cttgg 25

<210> 423
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<212> DNA
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<220>
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<400> 423
tatgtggacc ggaccaagca cttcactgag gccaccaaga ttg 43

<210> 424
<211> 4313
<212> DNA
<213> Homo sapiens

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aaagggtggC cttcttggGT agcaggAGTC agggggCTGT accctggGGG 4250
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aaaaaaaaaa aaa 4313

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<211> 1184
<212> PRT
<213> Homo sapiens

<400> 425
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Thr Val Lys Tyr Gln Val Ser Glu Glu Val Pro Ser Gly Thr Val
35 40 45

Ile Gly Lys Leu Ser Gln Glu Leu Gly Arg Glu Glu Arg Arg Arg
50 55 60

Gln Ala Gly Ala Ala Phe Gln Val Leu Gln Leu Pro Gln Ala Leu
65 70 75

Pro Ile Gln Val Asp Ser Glu Glu Gly Leu Leu Ser Thr Gly Arg
80 85 90

Arg Leu Asp Arg Glu Gln Leu Cys Arg Gln Trp Asp Pro Cys Leu
95 100 105

Val Ser Phe Asp Val Leu Ala Thr Gly Asp Leu Ala Leu Ile His
110 115 120

Val Glu Ile Gln Val Leu Asp Ile Asn Asp His Gln Pro Arg Phe
125 130 135

Pro Lys Gly Glu Gln Glu Leu Glu Ile Ser Glu Ser Ala Ser Leu
140 145 150

Arg Thr Arg Ile Pro Leu Asp Arg Ala Leu Asp Pro Asp Thr Gly
155 160 165

Pro Asn Thr Leu His Thr Tyr Thr Leu Ser Pro Ser Glu His Phe
170 175 180

Ala Leu Asp Val Ile Val Gly Pro Asp Glu Thr Lys His Ala Glu
185 190 195

Leu Ile Val Val Lys Glu Leu Asp Arg Glu Ile His Ser Phe Phe
200 205 210

Asp Leu Val Leu Thr Ala Tyr Asp Asn Gly Asn Pro Pro Lys Ser
215 220 225

Gly Thr Ser Leu Val Lys Val Asn Val Leu Asp Ser Asn Asp Asn
230 235 240

Ser Pro Ala Phe Ala Glu Ser Ser Leu Ala Leu Glu Ile Gln Glu
245 250 255

Asp Ala Ala Pro Gly Thr Leu Leu Ile Lys Leu Thr Ala Thr Asp
260 265 270

Pro Asp Gln Gly Pro Asn Gly Glu Val Glu Phe Phe Leu Ser Lys
275 280 285

His Met Pro Pro Glu Val Leu Asp Thr Phe Ser Ile Asp Ala Lys
290 295 300

Thr Gly Gln Val Ile Leu Arg Arg Pro Leu Asp Tyr Glu Lys Asn
305 310 315

Pro Ala Tyr Glu Val Asp Val Gln Ala Arg Asp Leu Gly Pro Asn
320 325 330

Pro Ile Pro Ala His Cys Lys Val Leu Ile Lys Val Leu Asp Val
335 340 345

Asn Asp Asn Ile Pro Ser Ile His Val Thr Trp Ala Ser Gln Pro
350 355 360

Ser Leu Val Ser Glu Ala Leu Pro Lys Asp Ser Phe Ile Ala Leu
365 370 375

Val Met Ala Asp Asp Leu Asp Ser Gly His Asn Gly Leu Val His
380 385 390

Cys Trp Leu Ser Gln Glu Leu Gly His Phe Arg Leu Lys Arg Thr
395 400 405

Asn Gly Asn Thr Tyr Met Leu Leu Thr Asn Ala Thr Leu Asp Arg
410 415 420

Glu Gln Trp Pro Lys Tyr Thr Leu Thr Leu Leu Ala Gln Asp Gln
425 430 435

Gly Leu Gln Pro Leu Ser Ala Lys Lys Gln Leu Ser Ile Gln Ile
440 445 450

Ser Asp Ile Asn Asp Asn Ala Pro Val Phe Glu Lys Ser Arg Tyr
455 460 465

Glu Val Ser Thr Arg Glu Asn Asn Leu Pro Ser Leu His Leu Ile
470 475 480

Thr Ile Lys Ala His Asp Ala Asp Leu Gly Ile Asn Gly Lys Val
485 490 495

Ser Tyr Arg Ile Gln Asp Ser Pro Val Ala His Leu Val Ala Ile
500 505 510

Asp Ser Asn Thr Gly Glu Val Thr Ala Gln Arg Ser Leu Asn Tyr
515 520 525

Glu Glu Met Ala Gly Phe Glu Phe Gln Val Ile Ala Glu Asp Ser
530 535 540

Gly Gln Pro Met Leu Ala Ser Ser Val Ser Val Trp Val Ser Leu
545 550 555

Leu Asp Ala Asn Asp Asn Ala Pro Glu Val Val Gln Pro Val Leu
560 565 570

Ser Asp Gly Lys Ala Ser Leu Ser Val Leu Val Asn Ala Ser Thr
575 580 585

Gly His Leu Leu Val Pro Ile Glu Thr Pro Asn Gly Leu Gly Pro
590 595 600

Ala Gly Thr Asp Thr Pro Pro Leu Ala Thr His Ser Ser Arg Pro
605 610 615

Phe Leu Leu Thr Thr Ile Val Ala Arg Asp Ala Asp Ser Gly Ala
620 625 630

Asn Gly Glu Pro Leu Tyr Ser Ile Arg Asn Gly Asn Glu Ala His
635 640 645

Leu Phe Ile Leu Asn Pro His Thr Gly Gln Leu Phe Val Asn Val
650 655 660

Thr Asn Ala Ser Ser Leu Ile Gly Ser Glu Trp Glu Leu Glu Ile
665 670 675

Val Val Glu Asp Gln Gly Ser Pro Pro Leu Gln Thr Arg Ala Leu
680 685 690

Leu Arg Val Met Phe Val Thr Ser Val Asp His Leu Arg Asp Ser
695 700 705

Ala Arg Lys Pro Gly Ala Leu Ser Met Ser Met Leu Thr Val Ile
710 715 720

Cys Leu Ala Val Leu Leu Gly Ile Phe Gly Leu Ile Leu Ala Leu
725 730 735

Phe Met Ser Ile Cys Arg Thr Glu Lys Lys Asp Asn Arg Ala Tyr
740 745 750

Asn Cys Arg Glu Ala Glu Ser Thr Tyr Arg Gln Gln Pro Lys Arg
755 760 765

Pro Gln Lys His Ile Gln Lys Ala Asp Ile His Leu Val Pro Val
770 775 780

Leu Arg Gly Gln Ala Gly Glu Pro Cys Glu Val Gly Gln Ser His
785 790 795

Lys Asp Val Asp Lys Glu Ala Met Met Glu Ala Gly Trp Asp Pro
800 805 810

Cys Leu Gln Ala Pro Phe His Leu Thr Pro Thr Leu Tyr Arg Thr
815 820 825

Leu Arg Asn Gln Gly Asn Gln Gly Ala Pro Ala Glu Ser Arg Glu
830 835 840

Val Leu Gln Asp Thr Val Asn Leu Leu Phe Asn His Pro Arg Gln
845 850 855

Arg Asn Ala Ser Arg Glu Asn Leu Asn Leu Pro Glu Pro Gln Pro
860 865 870

Ala Thr Gly Gln Pro Arg Ser Arg Pro Leu Lys Val Ala Gly Ser
 875 880 885
 Pro Thr Gly Arg Leu Ala Gly Asp Gln Gly Ser Glu Glu Ala Pro
 890 895 900
 Gln Arg Pro Pro Ala Ser Ser Ala Thr Leu Arg Arg Gln Arg His
 905 910 915
 Leu Asn Gly Lys Val Ser Pro Glu Lys Glu Ser Gly Pro Arg Gln
 920 925 930
 Ile Leu Arg Ser Leu Val Arg Leu Ser Val Ala Ala Phe Ala Glu
 935 940 945
 Arg Asn Pro Val Glu Glu Leu Thr Val Asp Ser Pro Pro Val Gln
 950 955 960
 Gln Ile Ser Gln Leu Leu Ser Leu Leu His Gln Gly Gln Phe Gln
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 Pro Lys Pro Asn His Arg Gly Asn Lys Tyr Leu Ala Lys Pro Gly
 980 985 990
 Gly Ser Arg Ser Ala Ile Pro Asp Thr Asp Gly Pro Ser Ala Arg
 995 1000 1005
 Ala Gly Gly Gln Thr Asp Pro Glu Gln Glu Glu Gly Pro Leu Asp
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 Pro Glu Glu Asp Leu Ser Val Lys Gln Leu Leu Glu Glu Glu Leu
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 Ser Ser Leu Leu Asp Pro Ser Thr Gly Leu Ala Leu Asp Arg Leu
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 Ser Ala Pro Asp Pro Ala Trp Met Ala Arg Leu Ser Leu Pro Leu
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 1070 1075 1080
 Thr Glu Glu Pro Arg Thr Phe Gln Thr Phe Gly Lys Ala Glu Ala
 1085 1090 1095
 Pro Glu Leu Ser Pro Thr Gly Thr Arg Leu Ala Ser Thr Phe Val
 1100 1105 1110
 Ser Glu Met Ser Ser Leu Leu Glu Met Leu Leu Glu Gln Arg Ser
 1115 1120 1125
 Ser Met Pro Val Glu Ala Ala Ser Glu Ala Leu Arg Arg Leu Ser
 1130 1135 1140
 Val Cys Gly Arg Thr Leu Ser Leu Asp Leu Ala Thr Ser Ala Ala
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Ser Gly Met Lys Val Gln Gly Asp Pro Gly Gly Lys Thr Gly Thr
1160 1165 1170

Glu Gly Lys Ser Arg Gly Ser Ser Ser Ser Arg Cys Leu
1175 1180

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<210> 427
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 427
tgacgtgga tgcttggat gttg 24

<210> 428
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<212> DNA
<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

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tggacacctt cagtattgat gccaaagacag gccaggcat tctgcgtcga 50

<210> 429
<211> 2037
<212> DNA
<213> Homo sapiens

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ggcctcgaaa agtggaaagt ggaggcagga gccttcctta cacttcgcca 150
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ttgccttga gattgactca ttaaatcag agactgtaac aaaaaaaaaa 1950
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ccgccccatggc ccaacttgtt tattgcagct tataatg 2037

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<213> Homo sapiens

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Lys Asp Tyr Glu Ile Arg Gln Tyr Val Val Gln Val Ile Phe Ser
35 40 45
Val Thr Phe Ala Phe Ser Cys Thr Met Phe Glu Leu Ile Ile Phe
50 55 60
Glu Ile Leu Gly Val Leu Asn Ser Ser Arg Tyr Phe His Trp
65 70 75
Lys Met Asn Leu Cys Val Ile Leu Ile Leu Val Phe Met Val
80 85 90
Pro Phe Tyr Ile Gly Tyr Phe Ile Val Ser Asn Ile Arg Leu Leu
95 100 105
His Lys Gln Arg Leu Leu Phe Ser Cys Leu Leu Trp Leu Thr Phe
110 115 120
Met Tyr Phe Phe Trp Lys Leu Gly Asp Pro Phe Pro Ile Leu Ser
125 130 135
Pro Lys His Gly Ile Leu Ser Ile Glu Gln Leu Ile Ser Arg Val
140 145 150
Gly Val Ile Gly Val Thr Leu Met Ala Leu Leu Ser Gly Phe Gly
155 160 165
Ala Val Asn Cys Pro Tyr Thr Tyr Met Ser Tyr Phe Leu Arg Asn
170 175 180
Val Thr Asp Thr Asp Ile Leu Ala Leu Glu Arg Arg Leu Leu Gln

185	190	195
Thr Met Asp Met Ile Ile Ser Lys Lys Lys Arg Met Ala Met Ala		
200	205	210
Arg Arg Thr Met Phe Gln Lys Gly Glu Val His Asn Lys Pro Ser		
215	220	225
Gly Phe Trp Gly Met Ile Lys Ser Val Thr Thr Ser Ala Ser Gly		
230	235	240
Ser Glu Asn Leu Thr Leu Ile Gln Gln Glu Val Asp Ala Leu Glu		
245	250	255
Glu Leu Ser Arg Gln Leu Phe Leu Glu Thr Ala Asp Leu Tyr Ala		
260	265	270
Thr Lys Glu Arg Ile Glu Tyr Ser Lys Thr Phe Lys Gly Lys Tyr		
275	280	285
Phe Asn Phe Leu Gly Tyr Phe Phe Ser Ile Tyr Cys Val Trp Lys		
290	295	300
Ile Phe Met Ala Thr Ile Asn Ile Val Phe Asp Arg Val Gly Lys		
305	310	315
Thr Asp Pro Val Thr Arg Gly Ile Glu Ile Thr Val Asn Tyr Leu		
320	325	330
Gly Ile Gln Phe Asp Val Lys Phe Trp Ser Gln His Ile Ser Phe		
335	340	345
Ile Leu Val Gly Ile Ile Val Thr Ser Ile Arg Gly Leu Leu		
350	355	360
Ile Thr Leu Thr Lys Phe Phe Tyr Ala Ile Ser Ser Ser Lys Ser		
365	370	375
Ser Asn Val Ile Val Leu Leu Ala Gln Ile Met Gly Met Tyr		
380	385	390
Phe Val Ser Ser Val Leu Leu Ile Arg Met Ser Met Pro Leu Glu		
395	400	405
Tyr Arg Thr Ile Ile Thr Glu Val Leu Gly Glu Leu Gln Phe Asn		
410	415	420
Phe Tyr His Arg Trp Phe Asp Val Ile Phe Leu Val Ser Ala Leu		
425	430	435
Ser Ser Ile Leu Phe Leu Tyr Leu Ala His Lys Gln Ala Pro Glu		
440	445	450
Lys Gln Met Ala Pro		
455		

<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 78, 81, 113, 157, 224, 297
<223> unknown base

<400> 431
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tggctttct tcngcgccaa tggttaaaga ctatgagata cgtagtgcg 150
ttgtacnngt gatttctcc gtgacgttg ccatttcttgc caccatgtt 200
gagctcatca tcttgaaat cttnngagta ttgaatagca gctcccgta 250
ttttcactgg aaaatgaacc tttgtgtaat tctgctgatc ctggttntca 300
tggtgccctt ttacattggc tattttatttgc tgagcaatat ccgactactg 350
cataaacaac gactgctttt ttcctgtctc ttatggctga cctttatgt 400
tttccag 407

<210> 432
<211> 457
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 31, 66, 81-82, 84, 122, 184, 187, 232, 241, 400, 424, 427, 434
<223> unknown base

<400> 432
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tattttttgg atttggggta gnttttttc atgcgccaat tggttaaaga 150
ctatgagata cgtagtgcgtt ttgtacaggt gatnttntcc gtgacgttg 200
cattttcttgc caccatgttt gagctcatca tnttgaaat nttaggagta 250
ttgaatagca gctcccgta ttttcactgg aaaatgaacc tttgtgtaat 300
tctgctgatc ctggtttca tggtgccctt ttacattggc tattttatttgc 350
tgagcaatat ccgactactg cataaacaac gactgctttt ttcctgtctn 400
ttatggctga cctttatgt 450

cattctc 457

<210> 433
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 433
aagtggagcc ggagccttcc 20

<210> 434
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 434
tcgttgttta tgcagtagtc gg 22

<210> 435
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 435
attgtttaaa gactatgaga tacgtcagta tgttgtacag g 41

<210> 436
<211> 3951
<212> DNA
<213> Homo sapiens

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ttctcacggg ctgtcgccctt caatctggac gtgatgggtg cttgcgc 150
ggagggcgag ccaggcagcc tcttcggctt ctctgtggcc ctgcaccggc 200
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gagctgatat gcaaaaaggaa agcaaggaga accagtggtt gggagtcagt 400

gttcggagcc agggcctgg gggcaagatt gttacctgtg cacaccata 450
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gtcggggagg aggttgtgtc actgactcag gctgctcctt ctctagttc 3850
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ttcgtctatt tattaaaaaa tatttgagaa caaaaaaaaaa aaaaaaaaaa 3950
a 3951

<210> 437
<211> 1141
<212> PRT
<213> Homo sapiens

<400> 437
Met Ala Gly Ala Arg Ser Arg Asp Pro Trp Gly Ala Ser Gly Ile
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Cys Tyr Leu Phe Gly Ser Leu Leu Val Glu Leu Leu Phe Ser Arg
20 25 30
Ala Val Ala Phe Asn Leu Asp Val Met Gly Ala Leu Arg Lys Glu
35 40 45
Gly Glu Pro Gly Ser Leu Phe Gly Phe Ser Val Ala Leu His Arg
50 55 60
Gln Leu Gln Pro Arg Pro Gln Ser Trp Leu Leu Val Gly Ala Pro
65 70 75
Gln Ala Leu Ala Leu Pro Gly Gln Gln Ala Asn Arg Thr Gly Gly
80 85 90
Leu Phe Ala Cys Pro Leu Ser Leu Glu Glu Thr Asp Cys Tyr Arg
95 100 105

Val Asp Ile Asp Gln Gly Ala Asp Met Gln Lys Glu Ser Lys Glu
110 115 120

Asn Gln Trp Leu Gly Val Ser Val Arg Ser Gln Gly Pro Gly Gly
125 130 135

Lys Ile Val Thr Cys Ala His Arg Tyr Glu Ala Arg Gln Arg Val
140 145 150

Asp Gln Ile Leu Glu Thr Arg Asp Met Ile Gly Arg Cys Phe Val
155 160 165

Leu Ser Gln Asp Leu Ala Ile Arg Asp Glu Leu Asp Gly Gly Glu
170 175 180

Trp Lys Phe Cys Glu Gly Arg Pro Gln Gly His Glu Gln Phe Gly
185 190 195

Phe Cys Gln Gln Gly Thr Ala Ala Ala Phe Ser Pro Asp Ser His
200 205 210

Tyr Leu Leu Phe Gly Ala Pro Gly Thr Tyr Asn Trp Lys Gly Thr
215 220 225

Ala Arg Val Glu Leu Cys Ala Gln Gly Ser Ala Asp Leu Ala His
230 235 240

Leu Asp Asp Gly Pro Tyr Glu Ala Gly Gly Glu Lys Glu Gln Asp
245 250 255

Pro Arg Leu Ile Pro Val Pro Ala Asn Ser Tyr Phe Gly Phe Ser
260 265 270

Ile Asp Ser Gly Lys Gly Leu Val Arg Ala Glu Glu Leu Ser Phe
275 280 285

Val Ala Gly Ala Pro Arg Ala Asn His Lys Gly Ala Val Val Ile
290 295 300

Leu Arg Lys Asp Ser Ala Ser Arg Leu Val Pro Glu Val Met Leu
305 310 315

Ser Gly Glu Arg Leu Thr Ser Gly Phe Gly Tyr Ser Leu Ala Val
320 325 330

Ala Asp Leu Asn Ser Asp Gly Trp Pro Asp Leu Ile Val Gly Ala
335 340 345

Pro Tyr Phe Phe Glu Arg Gln Glu Glu Leu Gly Gly Ala Val Tyr
350 355 360

Val Tyr Leu Asn Gln Gly His Trp Ala Gly Ile Ser Pro Leu
365 370 375

Arg Leu Cys Gly Ser Pro Asp Ser Met Phe Gly Ile Ser Leu Ala
380 385 390

Val Leu Gly Asp Leu Asn Gln Asp Gly Phe Pro Asp Ile Ala Val
395 400 405

Gly Ala Pro Phe Asp Gly Asp Gly Lys Val Phe Ile Tyr His Gly
410 415 420

Ser Ser Leu Gly Val Val Ala Lys Pro Ser Gln Val Leu Glu Gly
425 430 435

Glu Ala Val Gly Ile Lys Ser Phe Gly Tyr Ser Leu Ser Gly Ser
440 445 450

Leu Asp Met Asp Gly Asn Gln Tyr Pro Asp Leu Leu Val Gly Ser
455 460 465

Leu Ala Asp Thr Ala Val Leu Phe Arg Ala Arg Pro Ile Leu His
470 475 480

Val Ser His Glu Val Ser Ile Ala Pro Arg Ser Ile Asp Leu Glu
485 490 495

Gln Pro Asn Cys Ala Gly Gly His Ser Val Cys Val Asp Leu Arg
500 505 510

Val Cys Phe Ser Tyr Ile Ala Val Pro Ser Ser Tyr Ser Pro Thr
515 520 525

Val Ala Leu Asp Tyr Val Leu Asp Ala Asp Thr Asp Arg Arg Leu
530 535 540

Arg Gly Gln Val Pro Arg Val Thr Phe Leu Ser Arg Asn Leu Glu
545 550 555

Glu-Pro-Lys-His-Gln-Ala-Ser-Gly-Thr-Val-Trp-Leu-Lys-His-Gln
560 565 570

His Asp Arg Val Cys Gly Asp Ala Met Phe Gln Leu Gln Glu Asn
575 580 585

Val Lys Asp Lys Leu Arg Ala Ile Val Val Thr Leu Ser Tyr Ser
590 595 600

Leu Gln Thr Pro Arg Leu Arg Arg Gln Ala Pro Gly Gln Gly Leu
605 610 615

Pro Pro Val Ala Pro Ile Leu Asn Ala His Gln Pro Ser Thr Gln
620 625 630

Arg Ala Glu Ile His Phe Leu Lys Gln Gly Cys Gly Glu Asp Lys
635 640 645

Ile Cys Gln Ser Asn Leu Gln Leu Val His Ala Arg Phe Cys Thr
650 655 660

Arg Val Ser Asp Thr Glu Phe Gln Pro Leu Pro Met Asp Val Asp
665 670 675

Gly Thr Thr Ala Leu Phe Ala Leu Ser Gly Gln Pro Val Ile Gly
680 685 690

Leu Glu Leu Met Val Thr Asn Leu Pro Ser Asp Pro Ala Gln Pro
695 700 705

Gln Ala Asp Gly Asp Asp Ala His Glu Ala Gln Leu Leu Val Met
710 715 720

Leu Pro Asp Ser Leu His Tyr Ser Gly Val Arg Ala Leu Asp Pro
725 730 735

Ala Glu Lys Pro Leu Cys Leu Ser Asn Glu Asn Ala Ser His Val
740 745 750

Glu Cys Glu Leu Gly Asn Pro Met Lys Arg Gly Ala Gln Val Thr
755 760 765

Phe Tyr Leu Ile Leu Ser Thr Ser Gly Ile Ser Ile Glu Thr Thr
770 775 780

Glu Leu Glu Val Glu Leu Leu Leu Ala Thr Ile Ser Glu Gln Glu
785 790 795

Leu His Pro Val Ser Ala Arg Ala Arg Val Phe Ile Glu Leu Pro
800 805 810

Leu Ser Ile Ala Gly Met Ala Ile Pro Gln Gln Leu Phe Phe Ser
815 820 825

Gly Val Val Arg Gly Glu Arg Ala Met Gln Ser Glu Arg Asp Val
830 835 840

Gly-Ser-Lys-Val-Lys-Tyr-Glu-Val-Thr-Val-Ser-Asn-Gln-Gly-Gln
845 850 855

Ser Leu Arg Thr Leu Gly Ser Ala Phe Leu Asn Ile Met Trp Pro
860 865 870

His Glu Ile Ala Asn Gly Lys Trp Leu Leu Tyr Pro Met Gln Val
875 880 885

Glu Leu Glu Gly Gly Gln Gly Pro Gly Gln Lys Gly Leu Cys Ser
890 895 900

Pro Arg Pro Asn Ile Leu His Leu Asp Val Asp Ser Arg Asp Arg
905 910 915

Arg Arg Arg Glu Leu Glu Pro Pro Glu Gln Gln Glu Pro Gly Glu
920 925 930

Arg Gln Glu Pro Ser Met Ser Trp Trp Pro Val Ser Ser Ala Glu
935 940 945

Lys Lys Lys Asn Ile Thr Leu Asp Cys Ala Arg Gly Thr Ala Asn
950 955 960

Cys Val Val Phe Ser Cys Pro Leu Tyr Ser Phe Asp Arg Ala Ala
965 970 975

Val Leu His Val Trp Gly Arg Leu Trp Asn Ser Thr Phe Leu Glu
980 985 990

Glu Tyr Ser Ala Val Lys Ser Leu Glu Val Ile Val Arg Ala Asn
995 1000 1005

Ile Thr Val Lys Ser Ser Ile Lys Asn Leu Met Leu Arg Asp Ala
1010 1015 1020

Ser Thr Val Ile Pro Val Met Val Tyr Leu Asp Pro Met Ala Val
1025 1030 1035

Val Ala Glu Gly Val Pro Trp Trp Val Ile Leu Leu Ala Val Leu
1040 1045 1050

Ala Gly Leu Leu Val Leu Ala Leu Leu Val Leu Leu Leu Trp Lys
1055 1060 1065

Met Gly Phe Phe Lys Arg Ala Lys His Pro Glu Ala Thr Val Pro
1070 1075 1080

Gln Tyr His Ala Val Lys Ile Pro Arg Glu Asp Arg Gln Gln Phe
1085 1090 1095

Lys Glu Glu Lys Thr Gly Thr Ile Leu Arg Asn Asn Trp Gly Ser
1100 1105 1110

Pro Arg Arg Glu Gly Pro Asp Ala His Pro Ile Leu Ala Ala Asp
1115 1120 1125

Gly His Pro Glu Leu Gly Pro Asp Gly His Pro Gly Pro Gly Thr
1130 1135 1140

Ala

<210> 438
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 438
ggctgacacc gcagtgtct tcag 24

<210> 439
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 439
gctgctgggg actgcaatgt agct 24

<210> 440
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 440
catcctccat gtctccatg aggtctctat tgctccacga agcatac 46

<210> 441
<211> 1964
<212> DNA
<213> Homo sapiens

<400> 441
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cgtactgtgt gtgtgtgcag ccgcttggtg cagtcagtc ctgcagctg 200
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acagtggAAC-aaatcccgAG-aegaagtAGA-ggatgattAT-ttccgcactT-350
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aagcagtgcc cagtggctta tcccagccct gtttgggtt cagatggta 600
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aattctaagt gaaatttaaa ataaataaaat ttttaatgac ctgggtctta 1850
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aaaaaaaaaaa aaaa 1964

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<211> 436
<212> PRT
<213> Homo sapiens

<400> 442
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35	40	45
Thr Thr Ile Ser Gln Tyr Asp Lys Glu Val Gly Gln Trp Asn Lys		
50	55	60
Phe Arg Asp Glu Val Glu Asp Asp Tyr Phe Arg Thr Trp Ser Pro		
65	70	75
Gly Lys Pro Phe Asp Gln Ala Leu Asp Pro Ala Lys Asp Pro Cys		
80	85	90
Leu Lys Met Lys Cys Ser Arg His Lys Val Cys Ile Ala Gln Asp		
95	100	105
Ser Gln Thr Ala Val Cys Ile Ser His Arg Arg Leu Thr His Arg		
110	115	120
Met Lys Glu Ala Gly Val Asp His Arg Gln Trp Arg Gly Pro Ile		
125	130	135
Leu Ser Thr Cys Lys Gln Cys Pro Val Val Tyr Pro Ser Pro Val		
140	145	150
Cys Gly Ser Asp Gly His Thr Tyr Ser Phe Gln Cys Lys Leu Glu		
155	160	165
Tyr Gln Ala Cys Val Leu Gly Lys Gln Ile Ser Val Lys Cys Glu		
170	175	180
Gly His Cys Pro Cys Pro Ser Asp Lys Pro Thr Ser Thr Ser Arg		
185	190	195
Asn Val Lys Arg Ala Cys Ser Asp Leu Glu Phe Arg Glu Val Ala		
200	205	210
Asn Arg Leu Arg Asp Trp Phe Lys Ala Leu His Glu Ser Gly Ser		
215	220	225
Gln Asn Lys Lys Thr Lys Thr Leu Leu Arg Pro Glu Arg Ser Arg		
230	235	240
Phe Asp Thr Ser Ile Leu Pro Ile Cys Lys Asp Ser Leu Gly Trp		
245	250	255
Met Phe Asn Arg Leu Asp Thr Asn Tyr Asp Leu Leu Leu Asp Gln		
260	265	270
Ser Glu Leu Arg Ser Ile Tyr Leu Asp Lys Asn Glu Gln Cys Thr		
275	280	285
Lys Ala Phe Phe Asn Ser Cys Asp Thr Tyr Lys Asp Ser Leu Ile		
290	295	300
Ser Asn Asn Glu Trp Cys Tyr Cys Phe Gln Arg Gln Gln Asp Pro		
305	310	315
Pro Cys Gln Thr Glu Leu Ser Asn Ile Gln Lys Arg Gln Gly Val		

320	325	330
Lys Lys Leu Leu Gly Gln Tyr Ile Pro Leu Cys Asp Glu Asp Gly		
335	340	345
Tyr Tyr Lys Pro Thr Gln Cys His Gly Ser Val Gly Gln Cys Trp		
350	355	360
Cys Val Asp Arg Tyr Gly Asn Glu Val Met Gly Ser Arg Ile Asn		
365	370	375
Gly Val Ala Asp Cys Ala Ile Asp Phe Glu Ile Ser Gly Asp Phe		
380	385	390
Ala Ser Gly Asp Phe His Glu Trp Thr Asp Asp Glu Asp Asp Glu		
395	400	405
Asp Asp Ile Met Asn Asp Glu Asp Glu Ile Glu Asp Asp Asp Glu		
410	415	420
Asp Glu Gly Asp Asp Asp Gly Gly Asp Asp His Asp Val Tyr		
425	430	435

Ile

<210> 443
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 443
cagaatatt cagaagcgcc aaggg 25

<210> 444
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 444
catcatggtc atcaccacca tcatcatc 28

<210> 445
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 445

ggttactaca agccaacaca atgtcatggc agtgttggac agtgctgg 48
<210> 446
<211> 3617
<212> DNA
<213> Homo sapiens

<400> 446
cagactccag atttccctgt caaccacgag gagtccagag aggaaacgcg 50
gagcggagac aacagtacct gacgccttt tcagccccggg atcgccccag 100
cagggatggg cgacaagatc tggctgcct tccccgtgct ccttctgccc 150
gctctgcctc cggtgctgct gcctggggcg gccggcttca caccccttc 200
cgatagcgac ttcacccctta ccctcccgcc cggccagaag gagtgccttct 250
accagcccat gcccctgaag gcctcgctgg agatcgagta ccaagttttta 300
gatggagcag gattagatat tgatttccat ctgcctctc cagaaggcaa 350
aaccttagtt ttgaacaaa gaaaatcaga tggagttcac actgtagaga 400
ctgaagttgg tgattacatg ttctgctttt acaatacatt cagcaccatt 450
tctgagaagg tgattttctt tgaattaatc ctggataata tggagaaca 500
ggcacaagaa caagaagatt ggaagaaata tattactggc acagatata 550
tggatatgaa actggaagac atcctggaat ccatcaacag catcaagtcc 600
agactaagca aaagtggca catacaaatt ctgcttagag catttgaagc 650

tcgtgatcga aacatacaag aaagcaactt tgatagagtc aatttctgg 700
ctatggtaa ttttagtggtc atggtggtgg tgtcagccat tcaagtttat 750
atgctgaaga gtctgtttga agataagagg aaaagttagaa cttaaaactc 800
caaactagag tacgtaacat tgaaaaatga ggcataaaaa tgcaataaac 850
tgttacagtc aagaccatta atggctttct cccaaatatt ttgagatata 900
aaagttaggaa acaggtataa ttttaatgtg aaaattaatg cttcactt 950
tgtgcaagta atcctgctga tccagttgtc cttaagtgtg taacaggaat 1000
attttgcaga atataggttt aactgaatga agccatatta ataactgcat 1050
tttcctaact ttgaaaaatt ttgcaaattgt cttaggtgat ttaaataaat 1100
gagtattggg cctaattgca acaccagtct gtttttaaca gtttcttatt 1150
cccagaactt tttgtaaat gcggcagtta caaattaact gtgaaagt 1200
tcagtttaa gttataaattc acctgagaat tacctaattga tggattgaat 1250

aaatcttag actacaaaag cccaaacttt ctctattac atatgcatct 1300
ctcctataat gtaaatagaa taatagctt gaaatacaat taggttttg 1350
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tagtcttgt acTTGCTTA cATTCCAAA agCTGACATT tTCACGATTc 1450
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tctaaccctt aactaaagtg taggattta aaattaaatg tgaggtaaaa 1600
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tactcataac ataaatcaaa' ggagatgatt aatttccagt tagctggaaag 1950
aaactttggc tgttaggttt tattttctac aagaattctg gtttgaatta 2000
tttttgaag caggtacatt ttataaaatg taaggcctac tgtaaggttt 2050

ageactgggt-gtacatattt-attaaaaatt-tttattataa-caacttttat 2100
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gaaacataga ctcccaagtt ttaaacacccct aaatgtgaat aacccatata 2200
tacaacaaag tttctgccat cttagttttt gaagtctatg ggggtcttac 2250
tcaagtacta gtaatttaac ttcatcatga atgaactata attttttaagt 2300
tatGCCcatt tataacgttg tttatgacta catttgaggt tagaaacaaa 2350
cttaaaattt ggggtataga acccctcaac aggttagtaa tgctggaatt 2400
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tagtataaaa agagatacat ttccctctta ggcccctggg agaagagcag 2500
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aacagctcat tttgtcttt tcaatataca aattttaaaa atactacaat 3200
atttaactaa gccccaaccg atttccataa tgtagcagtt accgtgttca 3250
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gttatgctgt tcttcatgt gaatgtcaag acatggaggg tgtttgaat 3350
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aaaaaatgag cacttacaat tgtatgtctc ctcaaatgaa gattctttat 3450
gtgaaatttt aaaagacatt gattccgcat gtaaggattt ttcatctgaa 3500

gtacaataat gcacaatcag tttgctcaa actgctttat acttataaac 3550
agccatctta aataagcaac gtattgtgag tactgatatg tatataataa 3600
aaattatcaa aggaaaa 3617

<210> 447
<211> 229
<212> PRT
<213> Homo sapiens

<400> 447
Met Gly Asp Lys Ile Trp Leu Pro Phe Pro Val Leu Leu Leu Ala
1 5 10 15
Ala Leu Pro Pro Val Leu Leu Pro Gly Ala Ala Gly Phe Thr Pro
20 25 30
Ser Leu Asp Ser Asp Phe Thr Phe Thr Leu Pro Ala Gly Gln Lys
35 40 45
Glu Cys Phe Tyr Gln Pro Met Pro Leu Lys Ala Ser Leu Glu Ile
50 55 60

Glu	Tyr	Gln	Val	Leu	Asp	Gly	Ala	Gly	Leu	Asp	Ile	Asp	Phe	His
65									70					75
Leu	Ala	Ser	Pro	Glu	Gly	Lys	Thr	Leu	Val	Phe	Glu	Gln	Arg	Lys
80									85					90
Ser	Asp	Gly	Val	His	Thr	Val	Glu	Thr	Glu	Val	Gly	Asp	Tyr	Met
95									100					105
Phe	Cys	Phe	Asp	Asn	Thr	Phe	Ser	Thr	Ile	Ser	Glu	Lys	Val	Ile
110									115					120
Phe	Phe	Glu	Leu	Ile	Leu	Asp	Asn	Met	Gly	Glu	Gln	Ala	Gln	Glu
125									130					135
Gln	Glu	Asp	Trp	Lys	Lys	Tyr	Ile	Thr	Gly	Thr	Asp	Ile	Leu	Asp
140									145					150
Met	Lys	Leu	Glu	Asp	Ile	Leu	Glu	Ser	Ile	Asn	Ser	Ile	Lys	Ser
155									160					165
Arg	Leu	Ser	Lys	Ser	Gly	His	Ile	Gln	Ile	Leu	Leu	Arg	Ala	Phe
170									175					180
Glu	Ala	Arg	Asp	Arg	Asn	Ile	Gln	Glu	Ser	Asn	Phe	Asp	Arg	Val
185									190					195
Asn	Phe	Trp	Ser	Met	Val	Asn	Leu	Val	Val	Met	Val	Val	Val	Ser
200									205					210
Ala	Ile	Gln	Val	Tyr	Met	Leu	Lys	Ser	Leu	Phe	Glu	Asp	Lys	Arg
215									220					225

Lys Ser Arg Thr

<210> 448
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 448
cccagcagg ctggcgaca aga 23

<210> 449
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 449

gtcttccagt ttcatatcca ata 23

<210> 450
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 450
ccagaaggag cacgggaaag ggcagccaga tcttgtcgcc cat 43

<210> 451
<211> 859
<212> DNA
<213> Homo sapiens

<400> 451
ccatccctga gatctttta taaaaaaccc agtcttgct gaccagacaa 50
agcataccag atctcaccag agagtcgcag acactatgct gcctccatg 100
gccctgcca gtgtgtcctg gatgctgctt tcctgcctca ttctcctgtg 150
tcaggttcaa ggtgaagaaa cccagaagga actgccctct ccacggatca 200
gctgtcccaa aggctccaag gcctatggct ccccctgcta tgccttgtt 250
ttgtcaccaa aatcctggat ggatgcagat ctggcttgcc agaagcggcc 300
ctctggaaaa ctggtgtctg tgctcagttgg ggctgaggga tcctcgtgt 350
ctccccctggt-gaggagcatt-agtaacaget-actcatacat-ctggattggg-400
ctccatgacc ccacacaggg ctctgagcct gatggagatg gatgggagtg 450
gagtagcact gatgtgatga attactttgc atggagaaaa aatccctcca 500
ccatcttaaa ccctggccac tgtggagcc tgtcaagaag cacaggattt 550
ctgaagtgga aagattataa ctgtgatgca aagttaccct atgtctgcaa 600
gttcaaggac tagggcaggt gggaaagtca gacgcctcagc ttggcgtgca 650
gctcatcatg gacatgagac cagtgtgaag actcaccctg gaagagaata 700
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ttccttttc ttcacccatca tttcaggctt ttctctgtct tccatgtctt 800
gagatctcag agaataataa taaaaatgtt actttataaa aaaaaaaaaa 850
aaaaaaaaaa 859

<210> 452
<211> 175

<212> PRT

<213> Homo sapiens

<400> 452

Met Leu Pro Pro Met Ala Leu Pro Ser Val Ser Trp Met Leu Leu
1 5 10 , 15

Ser Cys Leu Ile Leu Leu Cys Gln Val Gln Gly Glu Glu Thr Gln
20 25 30

Lys Glu Leu Pro Ser Pro Arg Ile Ser Cys Pro Lys Gly Ser Lys
35 40 45

Ala Tyr Gly Ser Pro Cys Tyr Ala Leu Phe Leu Ser Pro Lys Ser
50 55 60

Trp Met Asp Ala Asp Leu Ala Cys Gln Lys Arg Pro Ser Gly Lys
65 70 75

Leu Val Ser Val Leu Ser Gly Ala Glu Gly Ser Phe Val Ser Ser
80 85 90

Leu Val Arg Ser Ile Ser Asn Ser Tyr Ser Tyr Ile Trp Ile Gly
95 100 105

Leu His Asp Pro Thr Gln Gly Ser Glu Pro Asp Gly Asp Gly Trp
110 115 120

Glu Trp Ser Ser Thr Asp Val Met Asn Tyr Phe Ala Trp Glu Lys
125 130 135

Asn Pro Ser Thr Ile Leu Asn Pro Gly His Cys Gly Ser Leu Ser
140 145 150

Arg Ser Thr Gly Phe Leu Lys Trp Lys Asp Tyr Asn Cys Asp Ala
155 160 165

Lys Leu Pro Tyr Val Cys Lys Phe Lys Asp
170 175

<210> 453

<211> 550

<212> DNA

<213> Homo sapiens

<400> 453

ccagtctgtc gccacacctac ttgggtgtctg ctgtccccgc caggcaagcc 50

tggggtgaga gcacagagga gtggggccggg accatgcggg ggacgcggct 100

ggcgctcctg gcgctggtgc tggctgcctg cggagagctg gcgccggccc 150

tgcgctgcta cgtctgtccg gagcccacag gagtgtcgga ctgtgtcacc 200

atcgccacct gcaccaccaa cgaaaccatg tgcaagacca cactctactc 250

ccgggagata gtgtacccct tccaggggga ctccacggtg accaagtcc 300

gtgccagcaa gtgttaagccc tcggatgtgg atggcatcg ccagaccctg 350
cccggtgcct gctgcaatac tgagctgtgc aatgttagacg gggcgccgc 400
tctgaacagc ctccactgcg gggccctcac gtcctccca ctcttgagcc 450
tccgactgta gagtccccgc ccaccccat ggccctatgc ggcccagccc 500
cgaatgcctt gaagaagtgc cccctgcacc agaaaaaaa aaaaaaaaaa 550

<210> 454

<211> 125

<212> PRT

<213> Homo sapiens

<400> 454

Met Arg Gly Thr Arg Leu Ala Leu Leu Ala Leu Val Leu Ala Ala
1 5 10 15

Cys Gly Glu Leu Ala Pro Ala Leu Arg Cys Tyr Val Cys Pro Glu
20 25 30

Pro Thr Gly Val Ser Asp Cys Val Thr Ile Ala Thr Cys Thr Thr
35 40 45

Asn Glu Thr Met Cys Lys Thr Thr Leu Tyr Ser Arg Glu Ile Val
50 55 60

Tyr Pro Phe Gln Gly Asp Ser Thr Val Thr Lys Ser Cys Ala Ser
65 70 75

Lys Cys Lys Pro Ser Asp Val Asp Gly Ile Gly Gln Thr Leu Pro
80 85 90

Val Ser Cys Cys Asn Thr Glu Leu Cys Asn Val Asp Gly Ala Pro
95 100 105

Ala Leu Asn Ser Leu His Cys Gly Ala Leu Thr Leu Leu Pro Leu
110 115 120

Leu Ser Leu Arg Leu
125

<210> 455

<211> 1518

<212> DNA

<213> Homo sapiens

<400> 455

ctgcagtca gactctggga ccgcaggggg ctcccgacc ctgactctgc 50

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attttctctt tctttctccc tcttgagtcc ttctgagatg atggctctgg 150

gcgcagcggg agctacccgg gtctttgtcg cgatggtagc ggcggctctc 200

ggcggccacc ctctgctggg agtgagcgcc accttgaact cggttctcaa 250
ttccaacgct atcaagaacc tgccccacc gctgggcggc gctgcggggc 300
acccaggctc tgcagtcaag cccgcgcgg gaatcctgta cccgggcggg 350
aataagtacc agaccattga caactaccag ccgtacccgt ggcagagga 400
cgaggagtgc ggcactgatg agtactgcgc tagtcccacc cgccggagggg 450
acgcaggcgt gcaaatctgt ctcgcctgca ggaagcgccg aaaacgctgc 500
atgcgtcacf ctatgtgctg ccccgaaat tactgaaaa atgaaatatg 550
tgtgtcttct gatcaaaaatc atttccgagg agaaatttag gaaaccatca 600
ctgaaagctt tggtaatgat catagcacct tggatggta ttccagaaga 650
accaccttgt cttcaaaaat gtatcacacc aaaggacaag aaggttctgt 700
ttgtctccgg tcatcagact gtgcctcagg attgtgtgt gctagacact 750
tctggtccaa gatctgtaaa cctgtcctgaa aagaaggta agtgtgtacc 800
aagcatagga gaaaaggctc tcatggacta gaaatattcc agcgttgtta 850
ctgtggagaa ggtctgtctt gccggataca gaaagatcac catcaaggca 900
gtaattcttc taggcttcac acttgcaga gacactaac cagctatcca 950
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gagtctagaa cgcaaggatc tcttggatg acaaattgata ggtacctaaa 1400
atgtaacatg aaaatactag cttatattct gaaatgtact atcttaatgc 1450
ttaaattata ttcccttta ggctgtgata gttttgaaa taaaattaa 1500
catttaaaaa aaaaaaaaa 1518

<210> 456
<211> 266

<212> PRT

<213> Homo sapiens

<400> 456

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Met	Val	Ala	Ala	Ala	Leu	Gly	Gly	His	Pro	Leu	Leu	Gly	Val	Ser
					20				25					30
Ala	Thr	Leu	Asn	Ser	Val	Leu	Asn	Ser	Asn	Ala	Ile	Lys	Asn	Leu
					35				40					45
Pro	Pro	Pro	Leu	Gly	Gly	Ala	Ala	Gly	His	Pro	Gly	Ser	Ala	Val
					50				55					60
Ser	Ala	Ala	Pro	Gly	Ile	Leu	Tyr	Pro	Gly	Gly	Asn	Lys	Tyr	Gln
					65				70					75
Thr	Ile	Asp	Asn	Tyr	Gln	Pro	Tyr	Pro	Cys	Ala	Glu	Asp	Glu	Glu
					80				85					90
Cys	Gly	Thr	Asp	Glu	Tyr	Cys	Ala	Ser	Pro	Thr	Arg	Gly	Gly	Asp
					95				100					105
Ala	Gly	Val	Gln	Ile	Cys	Leu	Ala	Cys	Arg	Lys	Arg	Arg	Lys	Arg
					110				115					120
Cys	Met	Arg	His	Ala	Met	Cys	Cys	Pro	Gly	Asn	Tyr	Cys	Lys	Asn
					125				130					135
Gly	Ile	Cys	Val	Ser	Ser	Asp	Gln	Asn	His	Phe	Arg	Gly	Glu	Ile
					140				145					150
Glu	Glu	Thr	Ile	Thr	Glu	Ser	Phe	Gly	Asn	Asp	His	Ser	Thr	Leu
					155				160					165
Asp	Gly	Tyr	Ser	Arg	Arg	Thr	Thr	Leu	Ser	Ser	Lys	Met	Tyr	His
					170				175					180
Thr	Lys	Gly	Gln	Glu	Gly	Ser	Val	Cys	Leu	Arg	Ser	Ser	Asp	Cys
					185				190					195
Ala	Ser	Gly	Leu	Cys	Cys	Ala	Arg	His	Phe	Trp	Ser	Lys	Ile	Cys
					200				205					210
Lys	Pro	Val	Leu	Lys	Glu	Gly	Gln	Val	Cys	Thr	Lys	His	Arg	Arg
					215				220					225
Lys	Gly	Ser	His	Gly	Leu	Glu	Ile	Phe	Gln	Arg	Cys	Tyr	Cys	Gly
					230				235					240
Glu	Gly	Leu	Ser	Cys	Arg	Ile	Gln	Lys	Asp	His	His	Gln	Ala	Ser
					245				250					255
Asn	Ser	Ser	Arg	Leu	His	Thr	Cys	Gln	Arg	His				
					260				265					

<210> 457
<211> 638
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 30, 123, 133, 139, 180, 214, 259, 282, 308, 452, 467, 471, 473,
509, 556
<223> unknown base

<400> 457
tgtgttccc tgcagtcaga atttgggacn gcaggggttc ccggacctga 50
ttttgcagcg gaacgggaag gttttgtgg acccagggtt aaatgacggt 100
catttttttt tcttttcct tcnggagtcc ttntgagang atggtttgg 150
gcgcagcggg agctaacccg gtttttgtn gcgatggtag cggcggttt 200
cggcggccac ctntgctgg gagtgagcgc caccttgaat cggtttcaa 250
ttccaacgnt atcaagaacc tgccccacc gntggcggc gctgcgggc 300
acccaggntt tgcagtcagc gccgcgcgg gaatcctgta cccgggcggg 350
aataagtacc agaccattga caattaccag ccgtacccgt gcgcagagga 400
cgaggagtgc ggcactgatg agtactgcgc tagtcccacc cgcggagggg 450
angcggcggt gcaaantgt ntngcctgca ggaagcgccg aaaacgctgc 500
atgegtcang-ctatgtgetg-ccccggaaat-tactgcaaaa-atggaatatg- 550

tgtgttttctt gatcaaaatc atttccgagg agaaatttag gaaaccatca 600
ctgaaagctt tggtaatgat catagcacct tggatggg 638

<210> 458
<211> 4040
<212> DNA
<213> Homo sapiens

<400> 458
gaggaaccta ccgttaccgg ccgcgcgctg gtgtcgccg gtgtggctgc 50
acacctaccaa tcccgtgcgc cgccgcgtgg ccgtcgagaa gtgcgtgtgc 100
ttctctcctg cacgcgggtgc ttgggctcgg ccaggcgggg tccgcccaca 150
gggtttgagg atgggggagt agctacagga agcgaccccg cgatggcaag 200
gtatattttt gtggaatgaa aaggaagtat tagaaatgag ctgaagacca 250
ttcacagatt aatatttttggggacagatt tgtgtcgctt gattcacccct 300

tgaagtaatg tagacagaag ttctcaaatt tgcattttac atcaactgga 350
accagcagt aatcttaatg ttcacttaaa tcagaacttg cataagaaag 400
agaatggag tctggtaaa taaagatgac tatatcagag acttgaaaag 450
gatcattctc tgccccctga tagtgtatat ggccatTTTA gtgggcacag 500
atcaggattt ttacagttt cttggagtgt cccaaactgc aagcagtaga 550
gaaataagac aagctttcaa gaaattggca ttgaagttac atcctgataa 600
aaacccgaat aacccaaatg cacatggcga tttttaaaaa ataaatagag 650
catatgaagt actcaaagat gaagatctac ggaaaaagta tgacaaatat 700
ggagaaaaagg gacttgagga taatcaaggt ggccagtatg aaagctggaa 750
ctattatcgT tatgattttg gtatTTATGA tGATGATCCT gaaatcataa 800
cattggaaag aagagaattt gatgctgctg ttaattctgg agaactgtgg 850
tttgtaaatt tttactcccc aggctgttca cactgccatg atttagctcc 900
cacatggaga gacttgcta aagaagtgga tgggttactt cgaattggag 950
ctgttaactg tggTgtatgat agaatgcttt gccgaatgaa aggagtcaac 1000
agctatccca gtctttcat tttcggct ggaatggccc cagtgaaata 1050
tcatggagac agatcaaagg agagtttagt gagtttgca atgcagcatg 1100
ttagaagtac agtgacagaa ctggacag gaaattttgt caactccata 1150

caaactgctt ttgctgctgg tattggctgg ctgatcactt tttgttcaaa 1200
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tggggatcaaa ctcattggat gctaaagaaa tatatttggat agtaatacat 1300
aatcttccag atttgaact acTTTcggca aacacactag aggatcgTTT 1350
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caaatgatcc tgagctgaaa aaactaaaaa ctctacttaa aaatgatcat 1450
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aagaatatga aattcatcat gggaaagaaga ttcttatgatatacttgcc 1600
tttgccaaag aaagtgtgaa ttctcatgtt accacgctt gacccaaata 1650
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gggtccacc atgtcgagct ttactaccag agttacgaag agcatcaaata 1750

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caagtatata aatctaggaa agggatcttc tagttctgt gttgtttaga 3900
ctcaaagaat cacaaatttgc tagtaacat gtagttgtt agttataatt 3950
cagagtgtac agaatggtaa aaattccaat cagtcaaaag aggtcaatga 4000

attaaaaggc ttgcaactt ttcaaaaaaaaaaaaaaaaaa 4040

<210> 459
<211> 747
<212> PRT
<213> Homo sapiens

<400> 459
Met Gly Val Trp Leu Asn Lys Asp Asp Tyr Ile Arg Asp Leu Lys
1 5 10 15
Arg Ile Ile Leu Cys Phe Leu Ile Val Tyr Met Ala Ile Leu Val
20 25 30
Gly Thr Asp Gln Asp Phe Tyr Ser Leu Leu Gly Val Ser Lys Thr
35 40 45
Ala Ser Ser Arg Glu Ile Arg Gln Ala Phe Lys Lys Leu Ala Leu
50 55 60
Lys Leu His Pro Asp Lys Asn Pro Asn Asn Pro Asn Ala His Gly
65 70 75

Asp Phe Leu Lys Ile Asn Arg Ala Tyr Glu Val Leu Lys Asp Glu
80 85 90

Asp Leu Arg Lys Lys Tyr Asp Lys Tyr Gly Glu Lys Gly Leu Glu
95 100 105

Asp Asn Gln Gly Gln Tyr Glu Ser Trp Asn Tyr Tyr Arg Tyr
110 115 120

Asp Phe Gly Ile Tyr Asp Asp Asp Pro Glu Ile Ile Thr Leu Glu
125 130 135

Arg Arg Glu Phe Asp Ala Ala Val Asn Ser Gly Glu Leu Trp Phe
140 145 150

Val Asn Phe Tyr Ser Pro Gly Cys Ser His Cys His Asp Leu Ala
155 160 165

Pro Thr Trp Arg Asp Phe Ala Lys Glu Val Asp Gly Leu Leu Arg
170 175 180

Ile Gly Ala Val Asn Cys Gly Asp Asp Arg Met Leu Cys Arg Met
185 190 195

Lys Gly Val Asn Ser Tyr Pro Ser Leu Phe Ile Phe Arg Ser Gly
200 205 210

Met Ala Pro Val Lys Tyr His Gly Asp Arg Ser Lys Glu Ser Leu
215 220 225

Val Ser Phe Ala Met Gln His Val Arg Ser Thr Val Thr Glu Leu
230 235 240

Trp-Thr-Gly-Asn-Phe-Val-Asn-Ser-Ile-Gln-Thr-Ala-Phe-Ala-Ala
245 250 255

Gly Ile Gly Trp Leu Ile Thr Phe Cys Ser Lys Gly Gly Asp Cys
260 265 270

Leu Thr Ser Gln Thr Arg Leu Arg Leu Ser Gly Met Leu Phe Leu
275 280 285

Asn Ser Leu Asp Ala Lys Glu Ile Tyr Leu Glu Val Ile His Asn
290 295 300

Leu Pro Asp Phe Glu Leu Leu Ser Ala Asn Thr Leu Glu Asp Arg
305 310 315

Leu Ala His His Arg Trp Leu Leu Phe Phe His Phe Gly Lys Asn
320 325 330

Glu Asn Ser Asn Asp Pro Glu Leu Lys Lys Leu Lys Thr Leu Leu
335 340 345

Lys Asn Asp His Ile Gln Val Gly Arg Phe Asp Cys Ser Ser Ala
350 355 360

Pro Asp Ile Cys Ser Asn Leu Tyr Val Phe Gln Pro Ser Leu Ala
365 370 375

Val Phe Lys Gly Gln Gly Thr Lys Glu Tyr Glu Ile His His Gly
380 385 390

Lys Lys Ile Leu Tyr Asp Ile Leu Ala Phe Ala Lys Glu Ser Val
395 400 405

Asn Ser His Val Thr Thr Leu Gly Pro Gln Asn Phe Pro Ala Asn
410 415 420

Asp Lys Glu Pro Trp Leu Val Asp Phe Phe Ala Pro Trp Cys Pro
425 430 435

Pro Cys Arg Ala Leu Leu Pro Glu Leu Arg Arg Ala Ser Asn Leu
440 445 450

Leu Tyr Gly Gln Leu Lys Phe Gly Thr Leu Asp Cys Thr Val His
455 460 465

Glu Gly Leu Cys Asn Met Tyr Asn Ile Gln Ala Tyr Pro Thr Thr
470 475 480

Val Val Phe Asn Gln Ser Asn Ile His Glu Tyr Glu Gly His His
485 490 495

Ser Ala Glu Gln Ile Leu Glu Phe Ile Glu Asp Leu Met Asn Pro
500 505 510

Ser Val Val Ser Leu Thr Pro Thr Thr Phe Asn Glu Leu Val Thr
515 520 525

Gln Arg Lys His Asn Glu Val Trp Met Val Asp Phe Tyr Ser Pro
530 535 540

Trp Cys His Pro Cys Gln Val Leu Met Pro Glu Trp Lys Arg Met
545 550 555

Ala Arg Thr Leu Thr Gly Leu Ile Asn Val Gly Ser Ile Asp Cys
560 565 570

Gln Gln Tyr His Ser Phe Cys Ala Gln Glu Asn Val Gln Arg Tyr
575 580 585

Pro Glu Ile Arg Phe Phe Pro Pro Lys Ser Asn Lys Ala Tyr Gln
590 595 600

Tyr His Ser Tyr Asn Gly Trp Asn Arg Asp Ala Tyr Ser Leu Arg
605 610 615

Ile Trp Gly Leu Gly Phe Leu Pro Gln Val Ser Thr Asp Leu Thr
620 625 630

Pro Gln Thr Phe Ser Glu Lys Val Leu Gln Gly Lys Asn His Trp
635 640 645

Val Ile Asp Phe Tyr Ala Pro Trp Cys Gly Pro Cys Gln Asn Phe
650 655 660

Ala Pro Glu Phe Glu Leu Leu Ala Arg Met Ile Lys Gly Lys Val
665 670 675

Lys Ala Gly Lys Val Asp Cys Gln Ala Tyr Ala Gln Thr Cys Gln
680 685 690

Lys Ala Gly Ile Arg Ala Tyr Pro Thr Val Lys Phe Tyr Phe Tyr
695 700 705

Glu Arg Ala Lys Arg Asn Phe Gln Glu Gln Ile Asn Thr Arg
710 715 720

Asp Ala Lys Ala Ile Ala Ala Leu Ile Ser Glu Lys Leu Glu Thr
725 730 735

Leu Arg Asn Gln Gly Lys Arg Asn Lys Asp Glu Leu
740 745

<210> 460

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 460

actccccagg ctgttacac tgcc 24

<210> 461

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 461

gatcagccag ccaataccag cagc 24

<210> 462

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 462

gtggtgatga tagaatgctt tgccgaatga aaggagtcaa cagctatccc 50

<210> 463

<211> 1818

<212> DNA

<213> Homo sapiens

<400> 463

agacagtacc tcctccctag gactacacaa ggactgaacc agaaggaaga 50
ggacagagca aagccatgaa catcatccta gaaatccttc tgcttctgtat 100
caccatcatc tactcctact tggagtcgtt ggtgaagttt ttcattcctc 150
agaggagaaa atctgtggct ggggagattt ttctcattac tggagctggg 200
catggaatacg gcagggcagac tacttatgaa tttgcaaaac gacagagcat 250
attggttctg tggatattta ataagcgcgg tgtggaggaa actgcagctg 300
agtgccgaaa actaggcgtc actgcgcatt cgtatgttgtt agactgcagc 350
aacagagaag agatctatcg ctctctaaat caggtgaaga aagaagtggg 400
tgatgtaca atcgtggta ataatgctgg gacagtatat ccagccgatc 450
ttctcagcac caaggatgaa gagattacca agacatttga ggtcaacatc 500
ctaggacatt tttggatcac aaaagcactt cttccatcga tgatggagag 550
aaatcatggc cacatcgta cagtggcttc agtgtgcggc cacgaaggga 600
ttccttacct catccatata tttccagca aatttgcgcg tttggcttt 650
cacagaggtc tgacatcaga acttcaggcc ttggaaaaaa ctggtatcaa 700
aacctcatgt ctctgcccag ttttgtgaa tactgggttc accaaaaatc 750
caagcacaag attatggcct gtattggaga cagatgaagt cgtaagaagt 800
ctgatagatg gaataacttac caataagaaa atgatttttgc ttccatcgta 850
tatcaatatac tttctgagac tacagaagtt tcttcctgaa cgcgcctcag 900
cgattttaaa tcgtatgcag aatattcaat ttgaagcagt gttggccac 950
aaaatcaaaa tgaaatgaat aaataagctc cagccagaga tgtatgcattg 1000
ataatgatatac gaatagtttc gaatcaatgc tgcaagctt tatttcacat 1050
ttttcagtc ctgataatata taaaaacatt gtttggcac tagcagcagt 1100
caaacgaaca agattaatta cctgtttcc ttttcctcaa gaatatttac 1150
gtagtttttc ataggtctgt ttttccttcc atgcctctta aaaacttctg 1200
tgcttacata aacatactta aaaggtttc tttaagatata tttatTTTTC 1250
catttaaagg tggacaaaag ctacccctt aaaaagtaaat acaaagagaa 1300
cttatttaca caggaaaggt ttaagactgt tcaagtagca ttccaatctg 1350

tagccatgcc acagaatatac aacaagaaca cagaatgagt gcacagctaa 1400
gagatcaagt ttcagcaggc agctttatct caacctggac atatttaag 1450
attcagcatt tgaaagattt ccctagcctc ttcccttttc attagccaa 1500
aacggtgcaa ctctattctg gactttatta cttgattctg tcttctgtat 1550
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agtcttataa gatacattat gaaaggtgac cgactctatt ttaaatctca 1650
gaattttaag ttctagcccc atgataacct ttttcttgc aatttatgct 1700
ttcatatatc cttggccca gagatgtta gacaattta ggctcaaaaa 1750
ttaaagctaa cacagaaaaa ggaactgtac tggctattac ataagaaaaca 1800
atggacccaa gagaagaa 1818

<210> 464

<211> 300

<212> PRT

<213> Homo sapiens

<400> 464

Met Asn Ile Ile Leu Glu Ile Leu Leu Leu Ile Thr Ile Ile
1 5 10 15

Tyr Ser Tyr Leu Glu Ser Leu Val Lys Phe Phe Ile Pro Gln Arg
20 25 30

Arg Lys Ser Val Ala Gly Glu Ile Val Leu Ile Thr Gly Ala Gly
35 40 45

His Gly Ile Gly Arg Gln Thr Thr Tyr Glu Phe Ala Lys Arg Gln
50 55 60

Ser Ile Leu Val Leu Trp Asp Ile Asn Lys Arg Gly Val Glu Glu
65 70 75

Thr Ala Ala Glu Cys Arg Lys Leu Gly Val Thr Ala His Ala Tyr
80 85 90

Val Val Asp Cys Ser Asn Arg Glu Glu Ile Tyr Arg Ser Leu Asn
95 100 105

Gln Val Lys Lys Glu Val Gly Asp Val Thr Ile Val Val Asn Asn
110 115 120

Ala Gly Thr Val Tyr Pro Ala Asp Leu Leu Ser Thr Lys Asp Glu
125 130 135

Glu Ile Thr Lys Thr Phe Glu Val Asn Ile Leu Gly His Phe Trp
140 145 150

Ile Thr Lys Ala Leu Leu Pro Ser Met Met Glu Arg Asn His Gly

	155	160	165
His Ile Val Thr Val Ala Ser Val Cys Gly His Glu Gly Ile Pro			
170	175	180	
Tyr Leu Ile Pro Tyr Cys Ser Ser Lys Phe Ala Ala Val Gly Phe			
185	190	195	
His Arg Gly Leu Thr Ser Glu Leu Gln Ala Leu Gly Lys Thr Gly			
200	205	210	
Ile Lys Thr Ser Cys Leu Cys Pro Val Phe Val Asn Thr Gly Phe			
215	220	225	
Thr Lys Asn Pro Ser Thr Arg Leu Trp Pro Val Leu Glu Thr Asp			
230	235	240	
Glu Val Val Arg Ser Leu Ile Asp Gly Ile Leu Thr Asn Lys Lys			
245	250	255	
Met Ile Phe Val Pro Ser Tyr Ile Asn Ile Phe Leu Arg Leu Gln			
260	265	270	
Lys Phe Leu Pro Glu Arg Ala Ser Ala Ile Leu Asn Arg Met Gln			
275	280	285	
Asn Ile Gln Phe Glu Ala Val Val Gly His Lys Ile Lys Met Lys			
290	295	300	

<210> 465
<211> 1547
<212> DNA
<213> Homo sapiens

<400> 465
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gagagggccc agcccgcccc gggcaggatg accaaggccc ggctgttccg 150
gctgtggctg gtgctgggtt cggtgttcat gatcctgctg atcatcgtgt 200
actggacacg cgccaggcgcc gcgcacttct acttgacac gtccttctct 250
aggccgcaca cggggccgccc gctgccacag cccggggccgg acagggacac 300
ggagctcacg gccgactccg atgtcgacga gtttctggac aagtttctca 350
gtgctggcgt gaagcagagc gaccttcca gaaaggagac ggagcagccg 400
cctgcgcggg ggagcatgga ggagagcgtg agaggctacg actggtcccc 450
gcgcgacgccc cggcgccagcc cagaccaggg ccggcagcag gcggagcgga 500
ggagcgtgtc gcggggcttc tgcccaact ccagcctggc cttccccacc 550

aaggagcgcg cattcgacga catccccaac tcggagctga gccacctgat 600
cgtggacgac cgccacgggg ccatctactg ctacgtgccc aaggtggcct 650
gcaccaactg gaagcgcgtg atgatcgtgc tgagcggaaag cctgctgcac 700
cgcggtgcgc cctaccgcga cccgctgcgc atcccgcg 750
caacgccagc ggcacacctga cttcaacaa gttctggcgc cgctacgg 800
agctctcccg ccacccatg aaggtcaagc tcaagaagta caccaagttc 850
ctttcgtgc gcgacccctt cgtgcgcctg atctccgcct tccgcagcaa 900
gttcgagctg gagaacgagg agttctaccg caagttcgcc gtgcccattgc 950
tgccgctgta cgccaaccac accagcctgc ccgcctcg 1000
ttcccgctg gcctcaaggt gtccttcg 1050
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tgtaccgcct ctgcaccccg tgccagatcg actacgactt cgtggggaaag 1150
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gctgggagga ggactggg 1300
ctgtataaac tctacgaggc cgactttttt ctctcggct accccaagcc 1350
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cctggAACCT gacgcacgcg cactccagtt ttttatgac ctacgatttt 1450
gcaatctggg cttcttgg 1500
atcgatattt ttttttaaga ttaatatatt tcaggtattt aatacga 1547

<210> 466
<211> 414
<212> PRT
<213> Homo sapiens

<400> 466
Met Thr Lys Ala Arg Leu Phe Arg Leu Trp Leu Val Leu Gly Ser
1 5 10 15
Val Phe Met Ile Leu Leu Ile Ile Val Tyr Trp Asp Ser Ala Gly
20 25 30
Ala Ala His Phe Tyr Leu His Thr Ser Phe Ser Arg Pro His Thr
35 40 45
Gly Pro Pro Leu Pro Thr Pro Gly Pro Asp Arg Asp Arg Glu Leu
50 55 60

Thr	Ala	Asp	Ser	Asp	Val	Asp	Glu	Phe	Leu	Asp	Lys	Phe	Leu	Ser
				65					70					75
Ala	Gly	Val	Lys	Gln	Ser	Asp	Leu	Pro	Arg	Lys	Glu	Thr	Glu	Gln
				80				85						90
Pro	Pro	Ala	Pro	Gly	Ser	Met	Glu	Glu	Ser	Val	Arg	Gly	Tyr	Asp
				95					100					105
Trp	Ser	Pro	Arg	Asp	Ala	Arg	Arg	Ser	Pro	Asp	Gln	Gly	Arg	Gln
				110				115						120
Gln	Ala	Glu	Arg	Arg	Ser	Val	Leu	Arg	Gly	Phe	Cys	Ala	Asn	Ser
				125				130						135
Ser	Leu	Ala	Phe	Pro	Thr	Lys	Glu	Arg	Ala	Phe	Asp	Asp	Ile	Pro
				140				145						150
Asn	Ser	Glu	Leu	Ser	His	Leu	Ile	Val	Asp	Asp	Arg	His	Gly	Ala
				155				160						165
Ile	Tyr	Cys	Tyr	Val	Pro	Lys	Val	Ala	Cys	Thr	Asn	Trp	Lys	Arg
				170				175						180
Val	Met	Ile	Val	Leu	Ser	Gly	Ser	Leu	Leu	His	Arg	Gly	Ala	Pro
				185				190						195
Tyr	Arg	Asp	Pro	Leu	Arg	Ile	Pro	Arg	Glu	His	Val	His	Asn	Ala
				200				205						210
Ser	Ala	His	Leu	Thr	Phe	Asn	Lys	Phe	Trp	Arg	Arg	Tyr	Gly	Lys
				215				220						225
Leu	Ser	Arg	His	Leu	Met	Lys	Val	Lys	Leu	Lys	Lys	Tyr	Thr	Lys
				230				235						240
Phe	Leu	Phe	Val	Arg	Asp	Pro	Phe	Val	Arg	Leu	Ile	Ser	Ala	Phe
				245				250						255
Arg	Ser	Lys	Phe	Glu	Leu	Glu	Asn	Glu	Glu	Phe	Tyr	Arg	Lys	Phe
				260				265						270
Ala	Val	Pro	Met	Leu	Arg	Leu	Tyr	Ala	Asn	His	Thr	Ser	Leu	Pro
				275				280						285
Ala	Ser	Ala	Arg	Glu	Ala	Phe	Arg	Ala	Gly	Leu	Lys	Val	Ser	Phe
				290				295						300
Ala	Asn	Phe	Ile	Gln	Tyr	Leu	Leu	Asp	Pro	His	Thr	Glu	Lys	Leu
				305				310						315
Ala	Pro	Phe	Asn	Glu	His	Trp	Arg	Gln	Val	Tyr	Arg	Leu	Cys	His
				320				325						330
Pro	Cys	Gln	Ile	Asp	Tyr	Asp	Phe	Val	Gly	Lys	Leu	Glu	Thr	Leu
				335				340						345

Asp Glu Asp Ala Ala Gln Leu Leu Gln Leu Leu Gln Val Asp Arg
350 355 360
Gln Leu Arg Phe Pro Pro Ser Tyr Arg Asn Arg Thr Ala Ser Ser
365 370 375
Trp Glu Glu Asp Trp Phe Ala Lys Ile Pro Leu Ala Trp Arg Gln
380 385 390
Gln Leu Tyr Lys Leu Tyr Glu Ala Asp Phe Val Leu Phe Gly Tyr
395 400 405
Pro Lys Pro Glu Asn Leu Leu Arg Asp
410

<210> 467

<211> 1071

<212> DNA

<213> Homo sapiens

<400> 467

tcgggccaga attccgcacg aggccgcacg agggcgacgg cctcacgggg 50

ctttggaggt gaaagaggcc cagagttagag agagagagag accgacgtac 100

acgggatggc tacggaaacg cgctatgccg ggaagggttgt ggtcgtgacc 150

gggggcgggc gcggcatcgg agctgggatc gtgcgcgcct tcgtgaacag 200

cggggcccca gtggtatct gcgacaagga tgagtctggg ggccggggcc 250

tggagcagga gctccctgga gctgtctta tcctctgtga tgtgactcag 300

gaagatgt tgaagaccct ggtttctgag accatccgcc gatttggccg 350

cctggattgt gttgtcaaca acgctggcca ccacccaccc ccacagaggc 400

ctgaggagac ctctgcccag ggattccgcc agctgctgga gctgaaccta 450

ctggggacgt acacccgtac caagctcgcc ctccccctacc tgcggaagag 500

tcaagggaat gtcataaca tctccagcct ggtggggca atcggccagg 550

cccaggcagt tccctatgtg gccaccaagg gggcagtaac agccatgacc 600

aaagcttgg ccctggatga aagtccatat ggtgtccgag tcaactgtat 650

ctccccagga aacatctgga ccccgctgtg ggaggagctg gcagcctaa 700

tgccagaccc taggccaca atccgagagg gcatgctggc ccagccactg 750

ggccgcattgg gccagccgc tgaggtcggt gctgcggcag tgttcctggc 800

ctccgaagcc aacttctgca cgggcattga actgctcgtg acgggggggtg 850

cagagctggg gtacgggtgc aaggccagtc ggagcacccc cgtggacgcc 900

cccgatatacc cttcctgatt tctctcattt ctacttgggg ccccccttct 950
aggactctcc caccccaaac tccaaccctgt atcagatgca gcccccaagc 1000
ccttagactc taagcccagt tagcaaggtg ccgggtcacc ctgcaggttc 1050
ccataaaaac gatttgcagc c 1071

<210> 468
<211> 270
<212> PRT
<213> Homo sapiens

<400> 468

Met	Ala	Thr	Gly	Thr	Arg	Tyr	Ala	Gly	Lys	Val	Val	Val	Val	Thr
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Gly	Gly	Gly	Arg	Gly	Ile	Gly	Ala	Gly	Ile	Val	Arg	Ala	Phe	Val
					20				25					30
Asn	Ser	Gly	Ala	Arg	Val	Val	Ile	Cys	Asp	Lys	Asp	Glu	Ser	Gly
					35				40					45
Gly	Arg	Ala	Leu	Glu	Gln	Glu	Leu	Pro	Gly	Ala	Val	Phe	Ile	Leu
					50				55					60
Cys	Asp	Val	Thr	Gln	Glu	Asp	Asp	Val	Lys	Thr	Leu	Val	Ser	Glu
					65				70					75
Thr	Ile	Arg	Arg	Phe	Gly	Arg	Leu	Asp	Cys	Val	Val	Asn	Asn	Ala
					80				85					90
Gly	His	His	Pro	Pro	Pro	Gln	Arg	Pro	Glu	Glu	Thr	Ser	Ala	Gln
					95				100					105
Gly	Phe	Arg	Gln	Leu	Leu	Glu	Leu	Asn	Leu	Leu	Gly	Thr	Tyr	Thr
					110				115					120
Leu	Thr	Lys	Leu	Ala	Leu	Pro	Tyr	Leu	Arg	Lys	Ser	Gln	Gly	Asn
					125				130					135
Val	Ile	Asn	Ile	Ser	Ser	Leu	Val	Gly	Ala	Ile	Gly	Gln	Ala	Gln
					140				145					150
Ala	Val	Pro	Tyr	Val	Ala	Thr	Lys	Gly	Ala	Val	Thr	Ala	Met	Thr
					155				160					165
Lys	Ala	Leu	Ala	Leu	Asp	Glu	Ser	Pro	Tyr	Gly	Val	Arg	Val	Asn
					170				175					180
Cys	Ile	Ser	Pro	Gly	Asn	Ile	Trp	Thr	Pro	Leu	Trp	Glu	Glu	Leu
					185				190					195
Ala	Ala	Leu	Met	Pro	Asp	Pro	Arg	Ala	Thr	Ile	Arg	Glu	Gly	Met
					200				205					210

Leu Ala Gln Pro Leu Gly Arg Met Gly Gln Pro Ala Glu Val Gly
215 220 225

Ala Ala Ala Val Phe Leu Ala Ser Glu Ala Asn Phe Cys Thr Gly
230 235 240

Ile Glu Leu Leu Val Thr Gly Gly Ala Glu Leu Gly Tyr Gly Cys
245 250 255

Lys Ala Ser Arg Ser Thr Pro Val Asp Ala Pro Asp Ile Pro Ser
260 265 270

<210> 469

<211> 687

<212> DNA

<213> Homo sapiens

<400> 469

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ccagcccagg agccccaaaa gcaagagggaa gggcaagg cgccctgggc 150

ccctggcccc tggccctcac caggtgccac tggacctggt gtcacggatg 200

aaaccgtatg cccgcatgga ggagtatgag aggaacatcg aggagatggt 250

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acgatcaacc acgaccccaag ccgtatcccc gtggacctgc cgaggacacg 400

gtgcctgtgt ctgggctgtg tgaacccctt caccatgcag gaggaccgca 450

gcatggtag cgtgccggtg ttcagccagg ttccctgtgcg ccggccgcctc 500

tgcccggcac cgccccgcac agggccctgc cgccagcgcg cagtcatgga 550

gaccatcgct gtgggctgca cctgcacatctt ctgaatcacc tggcccagaa 600

gccaggccag cagcccgaga ccatcctcct tgcacctttg tgccaagaaa 650

ggcctatgaa aagtaaacac tgactttga aagcaag 687

<210> 470

<211> 180

<212> PRT

<213> Homo sapiens

<400> 470

Met Asp Trp Pro His Asn Leu Leu Phe Leu Leu Thr Ile Ser Ile
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20 25 30

Gly Gln Gly Arg Pro Gly Pro Leu Ala Pro Gly Pro His Gln Val
35 40 45

Pro Leu Asp Leu Val Ser Arg Met Lys Pro Tyr Ala Arg Met Glu
50 55 60

Glu Tyr Glu Arg Asn Ile Glu Glu Met Val Ala Gln Leu Arg Asn
65 70 75

Ser Ser Glu Leu Ala Gln Arg Lys Cys Glu Val Asn Leu Gln Leu
80 85 90

Trp Met Ser Asn Lys Arg Ser Leu Ser Pro Trp Gly Tyr Ser Ile
95 100 105

Asn His Asp Pro Ser Arg Ile Pro Val Asp Leu Pro Glu Ala Arg
110 115 120

Cys Leu Cys Leu Gly Cys Val Asn Pro Phe Thr Met Gln Glu Asp
125 130 135

Arg Ser Met Val Ser Val Pro Val Phe Ser Gln Val Pro Val Arg
140 145 150

Arg Arg Leu Cys Pro Pro Pro Pro Arg Thr Gly Pro Cys Arg Gln
155 160 165

Arg Ala Val Met Glu Thr Ile Ala Val Gly Cys Thr Cys Ile Phe
170 175 180

<210> 471

<211> 2368

<212> DNA

<213> Homo sapiens

<400> 471

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cggcccgcaag ctaacggcgc tcctggccgc ctggatcgcg gctgtggcgg 200
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<210> 472

<211> 349

<212> PRT

<213> Homo sapiens

<400> 472

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Ala	Trp	Ile	Ala	Ala	Val	Ala	Ala	Thr	Ala	Gly	Pro	Glu	Glu	Ala
					20			25					30	

Ala	Leu	Pro	Pro	Glu	Gln	Ser	Arg	Val	Gln	Pro	Met	Thr	Ala	Ser
					35			40					45	

Asn	Trp	Thr	Leu	Val	Met	Glu	Gly	Glu	Trp	Met	Leu	Lys	Phe	Tyr
					50			55					60	

Ala	Pro	Trp	Cys	Pro	Ser	Cys	Gln	Gln	Thr	Asp	Ser	Glu	Trp	Glu
							65		70				75	

Ala	Phe	Ala	Lys	Asn	Gly	Glu	Ile	Leu	Gln	Ile	Ser	Val	Gly	Lys
							80		85				90	

Val	Asp	Val	Ile	Gln	Glu	Pro	Gly	Leu	Ser	Gly	Arg	Phe	Phe	Val
							95		100				105	

Thr	Thr	Leu	Pro	Ala	Phe	Phe	His	Ala	Lys	Asp	Gly	Ile	Phe	Arg
							110		115				120	

Arg	Tyr	Arg	Gly	Pro	Gly	Ile	Phe	Glu	Asp	Leu	Gln	Asn	Tyr	Ile
							125		130				135	

Leu	Glu	Lys	Lys	Trp	Gln	Ser	Val	Glu	Pro	Leu	Thr	Gly	Trp	Lys
							140		145				150	

Ser	Pro	Ala	Ser	Leu	Thr	Met	Ser	Gly	Met	Ala	Gly	Leu	Phe	Ser
							155		160				165	

Ile Ser Gly Lys Ile Trp His Leu His Asn Tyr Phe Thr Val Thr		
170	175	180
Leu Gly Ile Pro Ala Trp Cys Ser Tyr Val Phe Phe Val Ile Ala		
185	190	195
Thr Leu Val Phe Gly Leu Phe Met Gly Leu Val Leu Val Val Ile		
200	205	210
Ser Glu Cys Phe Tyr Val Pro Leu Pro Arg His Leu Ser Glu Arg		
215	220	225
Ser Glu Gln Asn Arg Arg Ser Glu Glu Ala His Arg Ala Glu Gln		
230	235	240
Leu Gln Asp Ala Glu Glu Glu Lys Asp Asp Ser Asn Glu Glu Glu		
245	250	255
Asn Lys Asp Ser Leu Val Asp Asp Glu Glu Glu Lys Glu Asp Leu		
260	265	270
Gly Asp Glu Asp Glu Ala Glu Glu Glu Glu Glu Asp Asn Leu		
275	280	285
Ala Ala Gly Val Asp Glu Glu Arg Ser Glu Ala Asn Asp Gln Gly		
290	295	300
Pro Pro Gly Glu Asp Gly Val Thr Arg Glu Glu Val Glu Pro Glu		
305	310	315
Glu Ala Glu Glu Gly Ile Ser Glu Gln Pro Cys Pro Ala Asp Thr		
320	325	330
Glu Val Val Glu Asp Ser Leu Arg Gln Arg Lys Ser Gln His Ala		
335	340	345
Asp Lys Gly Leu		

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<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 473
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<210> 474
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 474

cttcctcat ccacaccaggc agcc 24

<210> 475

<211> 44

<212> DNA

<213> Artificial Sequence

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<400> 475

gtggatgctt aaattttacg ccccatggtg tccatcctgc cagc 44

<210> 476

<211> 2478

<212> DNA

<213> Homo sapiens

<400> 476

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tcaagaacaa tggaatatca tcctgattta gaaaatttgg atgaagatgg 200

atatactcaa ttacacttcg actctcaaag caataccagg atagctgtt 250

tttcagagaa aggatcggtgt gctgcattctc ctccttggcg cctcattgt 300

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tgggaggatg gatcaacatt ctcttctaac ttatttcaga tcagaaccac 650

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tcatttatga ccaactgtgt agtgcattt catatgtat ttgtgagaag 750

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<210> 477
<211> 201
<212> PRT
<213> Homo sapiens

<400> 477
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Thr Gln Leu His Phe Asp Ser Gln Ser Asn Thr Arg Ile Ala Val
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Val Ser Glu Lys Gly Ser Cys Ala Ala Ser Pro Pro Trp Arg Leu
35 40 45
Ile Ala Val Ile Leu Gly Ile Leu Cys Leu Val Ile Leu Val Ile
50 55 60
Ala Val Val Leu Gly Thr Met Gly Val Leu Ser Ser Pro Cys Pro
65 70 75
Pro Asn Trp Ile Ile Tyr Glu Lys Ser Cys Tyr Leu Phe Ser Met
80 85 90
Ser Leu Asn Ser Trp Asp Gly Ser Lys Arg Gln Cys Trp Gln Leu
95 100 105
Gly Ser Asn Leu Leu Lys Ile Asp Ser Ser Asn Glu Leu Gly Phe
110 115 120
Ile Val Lys Gln Val Ser Ser Gln Pro Asp Asn Ser Phe Trp Ile
125 130 135
Gly Leu Ser Arg Pro Gln Thr Glu Val Pro Trp Leu Trp Glu Asp
140 145 150
Gly Ser Thr Phe Ser Ser Asn Leu Phe Gln Ile Arg Thr Thr Ala
155 160 165
Thr Gln Glu Asn Pro Ser Pro Asn Cys Val Trp Ile His Val Ser
170 175 180
Val Ile Tyr Asp Gln Leu Cys Ser Val Pro Ser Tyr Ser Ile Cys
185 190 195
Glu Lys Lys Phe Ser Met
200

<210> 478

<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 478
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<210> 479
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 479
acaagtgtct tcccaacctg 20

<210> 480
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 480
atcctcccaag agccatggta cctc 24

<210> 481
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 481
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<210> 482
<211> 3819
<212> DNA
<213> Homo sapiens

<400> 482
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<210> 483
<211> 693
<212> PRT
<213> Homo sapiens

<400> 483
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20 25 30
Asp Phe Arg Phe Cys Ser Gln Arg Asn Gln Thr His Arg Ser Ser
35 40 45
Leu His Tyr Lys Pro Thr Pro Asp Leu Arg Ile Ser Ile Glu Asn
50 55 60
Ser Glu Glu Ala Leu Thr Val His Ala Pro Phe Pro Ala Ala His
65 70 75
Pro Ala Ser Arg Ser Phe Pro Asp Pro Arg Gly Leu Tyr His Phe
80 85 90

Cys Leu Tyr Trp Asn Arg His Ala Gly Arg Leu His Leu Leu Tyr
 95 100 105
 Gly Lys Arg Asp Phe Leu Leu Ser Asp Lys Ala Ser Ser Leu Leu
 110 115 120
 Cys Phe Gln His Gln Glu Glu Ser Leu Ala Gln Gly Pro Pro Leu
 125 130 135
 Leu Ala Thr Ser Val Thr Ser Trp Trp Ser Pro Gln Asn Ile Ser
 140 145 150
 Leu Pro Ser Ala Ala Ser Phe Thr Phe Ser Phe His Ser Pro Pro
 155 160 165
 His Thr Ala Ala His Asn Ala Ser Val Asp Met Cys Glu Leu Lys
 170 175 180
 Arg Asp Leu Gln Leu Leu Ser Gln Phe Leu Lys His Pro Gln Lys
 185 190 195
 Ala Ser Arg Arg Pro Ser Ala Ala Pro Ala Ser Gln Gln Leu Gln
 200 205 210
 Ser Leu Glu Ser Lys Leu Thr Ser Val Arg Phe Met Gly Asp Met
 215 220 225
 Val Ser Phe Glu Glu Asp Arg Ile Asn Ala Thr Val Trp Lys Leu
 230 235 240
 Gln Pro Thr Ala Gly Leu Gln Asp Leu His Ile His Ser Arg Gln
 245 250 255
 Glu Glu Glu Gln Ser Glu Ile Met Glu Tyr Ser Val Leu Leu Pro
 260 265 270
 Arg Thr Leu Phe Gln Arg Thr Lys Gly Arg Ser Gly Glu Ala Glu
 275 280 285
 Lys Arg Leu Leu Leu Val Asp Phe Ser Ser Gln Ala Leu Phe Gln
 290 295 300
 Asp Lys Asn Ser Ser Gln Val Leu Gly Glu Lys Val Leu Gly Ile
 305 310 315
 Val Val Gln Asn Thr Lys Val Ala Asn Leu Thr Glu Pro Val Val
 320 325 330
 Leu Thr Phe Gln His Gln Leu Gln Pro Lys Asn Val Thr Leu Gln
 335 340 345
 Cys Val Phe Trp Val Glu Asp Pro Thr Leu Ser Ser Pro Gly His
 350 355 360
 Trp Ser Ser Ala Gly Cys Glu Thr Val Arg Arg Glu Thr Gln Thr
 365 370 375

Ser Cys Phe Cys Asn His Leu Thr Tyr Phe Ala Val Leu Met Val
380 385 390

Ser Ser Val Glu Val Asp Ala Val His Lys His Tyr Leu Ser Leu
395 400 405

Leu Ser Tyr Val Gly Cys Val Val Ser Ala Leu Ala Cys Leu Val
410 415 420

Thr Ile Ala Ala Tyr Leu Cys Ser Arg Val Pro Leu Pro Cys Arg
425 430 435

Arg Lys Pro Arg Asp Tyr Thr Ile Lys Val His Met Asn Leu Leu
440 445 450

Leu Ala Val Phe Leu Leu Asp Thr Ser Phe Leu Leu Ser Glu Pro
455 460 465

Val Ala Leu Thr Gly Ser Glu Ala Gly Cys Arg Ala Ser Ala Ile
470 475 480

Phe Leu His Phe Ser Leu Leu Thr Cys Leu Ser Trp Met Gly Leu
485 490 495

Glu Gly Tyr Asn Leu Tyr Arg Leu Val Val Glu Val Phe Gly Thr
500 505 510

Tyr Val Pro Gly Tyr Leu Leu Lys Leu Ser Ala Met Gly Trp Gly
515 520 525

Phe Pro Ile Phe Leu Val Thr Leu Val Ala Leu Val Asp Val Asp
530 535 540

Asn Tyr Gly Pro Ile Ile Leu Ala Val His Arg Thr Pro Glu Gly
545 550 555

Val Ile Tyr Pro Ser Met Cys Trp Ile Arg Asp Ser Leu Val Ser
560 565 570

Tyr Ile Thr Asn Leu Gly Leu Phe Ser Leu Val Phe Leu Phe Asn
575 580 585

Met Ala Met Leu Ala Thr Met Val Val Gln Ile Leu Arg Leu Arg
590 595 600

Pro His Thr Gln Lys Trp Ser His Val Leu Thr Leu Leu Gly Leu
605 610 615

Ser Leu Val Leu Gly Leu Pro Trp Ala Leu Ile Phe Phe Ser Phe
620 625 630

Ala Ser Gly Thr Phe Gln Leu Val Val Leu Tyr Leu Phe Ser Ile
635 640 645

Ile Thr Ser Phe Gln Gly Phe Leu Ile Phe Ile Trp Tyr Trp Ser
650 655 660

Met Arg Leu Gln Ala Arg Gly Gly Pro Ser Pro Leu Lys Ser Asn
665 670 675

Ser Asp Ser Ala Arg Leu Pro Ile Ser Ser Gly Ser Thr Ser Ser
680 685 690

Ser Arg Ile

<210> 484

<211> 516

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 68, 70, 84, 147

<223> unknown base

<400> 484

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ctgccttgca gagaaancn tcgggactac accntcaagt gcacatgaac 100

ctgctgctgg ccgtcttcct gctggacacg agcttcctgc tcagcgnagc 150

cggtgccct gacaggctct gaaggctggc tgccgagcca gtgccatctt 200

cctgcacttc tcctgctcac ctgcctttcc tggatgggcc tcgaggggta 250

caacctctac cgactcgtagg tggaggttt tggcacctat gtccctggct 300

acctactcaa gctgagcgcc atgggctggg gcttccccat ctttctggtg 350

acgctggtgg ccctggtgga tgtggacaac tatggcccca tcatcttggc 400

tgtgcataagg actccagagg gcgtcatcta cccttccatg tgctggatcc 450

gggactccct ggtcagctac atcaccaacc tgggcctttt cagcctggtg 500

tttctgttca acatgg 516

<210> 485

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 485

ggcattggag cagtgctggg tg 22

<210> 486

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 486

tggaggccta gatgcggctg gacg 24

<210> 487

<211> 2849

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> 2715

<223> unknown base

<400> 487

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aagaggcgtc tagaaaaaag ttttgatgg gattatgtgg aaactaccct 150

gcgattctct gctgccagag caggctcgcc gcttccaccc cagtgcagcc 200

ttccccctggc ggtggtaaa gagactcggg agtcgtgtct tccaaagtgc 250

ccgcccgtgag tgagctctca ccccagtca ccaaattgagc ctcttcggc 300

ttctcctgtct gacatctgcc ctggccggcc agagacaggg gactcaggcg 350

gaatccaacc tgagtagtaa attccagttt tccagcaaca aggaacagaa 400

cggagtacaa gatcctcagc atgagagaat tattactgtg tctactaatg 450

gaagtattca cagcccaagg tttcctcata cttatccaag aaatacggc 500

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gtttgatgaa agatttgggc ttgaagaccc agaagatgac atatgcaagt 600

atgattttgt agaagttgag gaacccagtg atgaaactat attagggcgc 650

tggtgtggtt ctggtaactgt accaggaaaa cagattctca aaggaaatca 700

aattaggata agatttgtat ctgatgaata ttttccttct gaaccagggt 750

tctgcattca ctacaacatt gtcatgccac aattcacaga agctgtgagt 800

ccttcagtgc taccccttc agctttgcca ctggacctgc ttaataatgc 850

tataactgcc ttttagtacct tggaagaccc tattcgatat cttgaaccag 900

agagatggca gttggactta gaagatctat ataggccaac ttggcaactt 950

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<210> 488

<211> 345

<212> PRT

<213> Homo sapiens

<400> 488

Met Ser Leu Phe Gly Leu Leu Leu Leu Thr Ser Ala Leu Ala Gly
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Gln Arg Gln Gly Thr Gln Ala Glu Ser Asn Leu Ser Ser Lys Phe
20 25 30

Gln Phe Ser Ser Asn Lys Glu Gln Asn Gly Val Gln Asp Pro Gln
35 40 45

His Glu Arg Ile Ile Thr Val Ser Thr Asn Gly Ser Ile His Ser
50 55 60

Pro Arg Phe Pro His Thr Tyr Pro Arg Asn Thr Val Leu Val Trp
65 70 75

Arg Leu Val Ala Val Glu Glu Asn Val Trp Ile Gln Leu Thr Phe
80 85 90

Asp Glu Arg Phe Gly Leu Glu Asp Pro Glu Asp Asp Ile Cys Lys
95 100 105

Tyr Asp Phe Val Glu Val Glu Pro Ser Asp Gly Thr Ile Leu
110 115 120

Gly Arg Trp Cys Gly Ser Gly Thr Val Pro Gly Lys Gln Ile Ser
125 130 135

Lys Gly Asn Gln Ile Arg Ile Arg Phe Val Ser Asp Glu Tyr Phe
140 145 150

Pro Ser Glu Pro Gly Phe Cys Ile His Tyr Asn Ile Val Met Pro
155 160 165

Gln	Phe	Thr	Glu	Ala	Val	Ser	Pro	Ser	Val	Leu	Pro	Pro	Ser	Ala
170									175					180
Leu	Pro	Leu	Asp	Leu	Leu	Asn	Asn	Ala	Ile	Thr	Ala	Phe	Ser	Thr
185									190					195
Leu	Glu	Asp	Leu	Ile	Arg	Tyr	Leu	Glu	Pro	Glu	Arg	Trp	Gln	Leu
200									205					210
Asp	Leu	Glu	Asp	Leu	Tyr	Arg	Pro	Thr	Trp	Gln	Leu	Leu	Gly	Lys
215									220					225
Ala	Phe	Val	Phe	Gly	Arg	Lys	Ser	Arg	Val	Val	Asp	Leu	Asn	Leu
230									235					240
Leu	Thr	Glu	Glu	Val	Arg	Leu	Tyr	Ser	Cys	Thr	Pro	Arg	Asn	Phe
245									250					255
Ser	Val	Ser	Ile	Arg	Glu	Glu	Leu	Lys	Arg	Thr	Asp	Thr	Ile	Phe
260									265					270
Trp	Pro	Gly	Cys	Leu	Leu	Val	Lys	Arg	Cys	Gly	Gly	Asn	Cys	Ala
275									280					285
Cys	Cys	Leu	His	Asn	Cys	Asn	Glu	Cys	Gln	Cys	Val	Pro	Ser	Lys
290									295					300
Val	Thr	Lys	Lys	Tyr	His	Glu	Val	Leu	Gln	Leu	Arg	Pro	Lys	Thr
305									310					315
Gly	Val	Arg	Gly	Leu	His	Lys	Ser	Leu	Thr	Asp	Val	Ala	Leu	Glu
320									325					330

His	His	Glu	Glu	Cys	Asp	Cys	Val	Cys	Arg	Gly	Ser	Thr	Gly	Gly
335									340					345

<210> 489

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 489

acttctcagt gtccataagg g 21

<210> 490

<211> 40

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 490

gaactaaaga gaaccgatac cattttctgg ccaggttgc 40

<210> 491
<211> 20
<212> DNA
<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 491
caccacagcg tttaaccagg 20

<210> 492
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<400> 492
acaacaggca cagttccac 20

<210> 493
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<212> DNA
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<400> 493
ggcggaatcc aacctgagta g 21

<210> 494
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<400> 494
gcggctatcc tccttgctc 20

<210> 495
<211> 3283
<212> DNA
<213> Homo sapiens

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ggacactgaa gagacaattt cttatccttt ttaacataat cctaatttcc 150

aaactccttg gggctagatg gtttcctaaa actctgcctt gtgatgtcac 200
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acaactgcct agtttaccaa ggagaggcct ggc 3283

<210> 496

<211> 1049

<212> PRT

<213> Homo sapiens

<400> 496

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Phe	Asn	Ile	Ile	Leu	Ile	Ser	Lys	Leu	Leu	Gly	Ala	Arg	Trp	Phe
				20				25						30

Pro	Lys	Thr	Leu	Pro	Cys	Asp	Val	Thr	Leu	Asp	Val	Pro	Lys	Asn
					35			40						45

His	Val	Ile	Val	Asp	Cys	Thr	Asp	Lys	His	Leu	Thr	Glu	Ile	Pro
				50				55						60

Gly	Gly	Ile	Pro	Thr	Asn	Thr	Thr	Asn	Leu	Thr	Leu	Thr	Ile	Asn
				65				70						75

His	Ile	Pro	Asp	Ile	Ser	Pro	Ala	Ser	Phe	His	Arg	Leu	Asp	His
				80				85						90

Leu	Val	Glu	Ile	Asp	Phe	Arg	Cys	Asn	Cys	Val	Pro	Ile	Pro	Leu
				95				100						105

Gly	Ser	Lys	Asn	Asn	Met	Cys	Ile	Lys	Arg	Leu	Gln	Ile	Lys	Pro
					110			115						120

Arg	Ser	Phe	Ser	Gly	Leu	Thr	Tyr	Leu	Lys	Ser	Leu	Tyr	Leu	Asp
				125				130						135

Gly	Asn	Gln	Leu	Leu	Glu	Ile	Pro	Gln	Gly	Leu	Pro	Pro	Ser	Leu
				140				145						150

Gln	Leu	Leu	Ser	Leu	Glu	Ala	Asn	Asn	Ile	Phe	Ser	Ile	Arg	Lys
				155				160						165

Glu	Asn	Leu	Thr	Glu	Leu	Ala	Asn	Ile	Glu	Ile	Leu	Tyr	Leu	Gly
				170				175						180

Gln	Asn	Cys	Tyr	Tyr	Arg	Asn	Pro	Cys	Tyr	Val	Ser	Tyr	Ser	Ile
				185				190						195

Glu	Lys	Asp	Ala	Phe	Leu	Asn	Leu	Thr	Lys	Leu	Lys	Val	Leu	Ser
200									205					210
Leu	Lys	Asp	Asn	Asn	Val	Thr	Ala	Val	Pro	Thr	Val	Leu	Pro	Ser
215									220					225
Thr	Leu	Thr	Glu	Leu	Tyr	Leu	Tyr	Asn	Asn	Met	Ile	Ala	Lys	Ile
230									235					240
Gln	Glu	Asp	Asp	Phe	Asn	Asn	Leu	Asn	Gln	Leu	Gln	Ile	Leu	Asp
245									250					255
Leu	Ser	Gly	Asn	Cys	Pro	Arg	Cys	Tyr	Asn	Ala	Pro	Phe	Pro	Cys
260									265					270
Ala	Pro	Cys	Lys	Asn	Asn	Ser	Pro	Leu	Gln	Ile	Pro	Val	Asn	Ala
275									280					285
Phe	Asp	Ala	Leu	Thr	Glu	Leu	Lys	Val	Leu	Arg	Leu	His	Ser	Asn
290									295					300
Ser	Leu	Gln	His	Val	Pro	Pro	Arg	Trp	Phe	Lys	Asn	Ile	Asn	Lys
305									310					315
Leu	Gln	Glu	Leu	Asp	Leu	Ser	Gln	Asn	Phe	Leu	Ala	Lys	Glu	Ile
320									325					330
Gly	Asp	Ala	Lys	Phe	Leu	His	Phe	Leu	Pro	Ser	Leu	Ile	Gln	Leu
335									340					345
Asp	Leu	Ser	Phe	Asn	Phe	Glu	Leu	Gln	Val	Tyr	Arg	Ala	Ser	Met
350									355					360
Asn	Leu	Ser	Gln	Ala	Phe	Ser	Ser	Leu	Lys	Ser	Leu	Lys	Ile	Leu
365									370					375
Arg	Ile	Arg	Gly	Tyr	Val	Phe	Lys	Glu	Leu	Lys	Ser	Phe	Asn	Leu
380									385					390
Ser	Pro	Leu	His	Asn	Leu	Gln	Asn	Leu	Glu	Val	Leu	Asp	Leu	Gly
395									400					405
Thr	Asn	Phe	Ile	Lys	Ile	Ala	Asn	Leu	Ser	Met	Phe	Lys	Gln	Phe
410									415					420
Lys	Arg	Leu	Lys	Val	Ile	Asp	Leu	Ser	Val	Asn	Lys	Ile	Ser	Pro
425									430					435
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Phe	Lys	Asn	Leu	Leu	Lys	Leu	Glu	Leu	Asp	Ile	Ser	Lys	Asn	
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His	His	Asn	Arg	Phe	Leu	Cys	Thr	Cys	Asp	Ala	Val	Trp	Phe	Val
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Met	Met	Thr	Ala	Ser	His	Leu	Tyr	Phe	Trp	Asp	Val	Trp	Tyr	Ile
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<400> 498

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35 40 45

Ile Ala Glu Cys Ser Asn Arg Arg Leu Gln Glu Val Pro Gln Thr
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Val Gly Lys Tyr Val Thr Glu Leu Asp Leu Ser Asp Asn Phe Ile
65 70 75

Thr His Ile Thr Asn Glu Ser Phe Gln Gly Leu Gln Asn Leu Thr
80 85 90

Lys Ile Asn Leu Asn His Asn Pro Asn Val Gln His Gln Asn Gly
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Asn Pro Gly Ile Gln Ser Asn Gly Leu Asn Ile Thr Asp Gly Ala
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Phe Leu Asn Leu Lys Asn Leu Arg Glu Leu Leu Leu Glu Asp Asn
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Gln Leu Pro Gln Ile Pro Ser Gly Leu Pro Glu Ser Leu Thr Glu
140 145 150

Leu Ser Leu Ile Gln Asn Asn Ile Tyr Asn Ile Thr Lys Glu Gly
155 160 165

Ile Ser Arg Leu Ile Asn Leu Lys Asn Leu Tyr Leu Ala Trp Asn
170 175 180

Cys Tyr Phe Asn Lys Val Cys Glu Lys Thr Asn Ile Glu Asp Gly
185 190 195

Val Phe Glu Thr Leu Thr Asn Leu Glu Leu Leu Ser Leu Ser Phe
200 205 210

Asn Ser Leu Ser His Val Pro Pro Lys Leu Pro Ser Ser Leu Arg
215 220 225

Lys Leu Phe Leu Ser Asn Thr Gln Ile Lys Tyr Ile Ser Glu Glu
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Lys	Ile	Asn	Ala	Ala	Trp	Phe	Lys	Asn	Met	Pro	His	Leu	Lys	Val
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Ala	Phe	Leu	Thr	Met	Leu	Pro	Arg	Leu	Glu	Ile	Leu	Asp	Leu	Ser
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Arg	Asn	Phe	Ser	Lys	Leu	Leu	Ser	Leu	Arg	Ala	Leu	His	Leu	Arg
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Ile	Lys	Gln	Ile	Asp	Phe	Lys	Leu	Phe	Gln	Asn	Phe	Ser	Asn	Leu
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Asp	Thr	Arg	Gln	Ser	Tyr	Ala	Asn	Ser	Ser	Ser	Phe	Gln	Arg	His
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Ile	Arg	Lys	Arg	Arg	Ser	Thr	Asp	Phe	Glu	Phe	Asp	Pro	His	Ser
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Ala	Tyr	Gly	Lys	Ala	Leu	Asp	Leu	Ser	Leu	Asn	Ser	Ile	Phe	Phe
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Ile	Gly	Pro	Asn	Gln	Phe	Glu	Asn	Leu	Pro	Asp	Ile	Ala	Cys	Leu
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Asn	Leu	Ser	Ala	Asn	Ser	Asn	Ala	Gln	Val	Leu	Ser	Gly	Thr	Glu
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Arg	Leu	Asp	Phe	Asp	Asn	Ala	Ser	Ala	Leu	Thr	Glu	Leu	Ser	Asp
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Leu	Glu	Val	Leu	Asp	Leu	Ser	Tyr	Asn	Ser	His	Tyr	Phe	Arg	Ile
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Ala	Gly	Val	Thr	His	His	Leu	Glu	Phe	Ile	Gln	Asn	Phe	Thr	Asn
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Leu	Lys	Val	Leu	Asn	Leu	Ser	His	Asn	Asn	Ile	Tyr	Thr	Leu	Thr
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Asp	Lys	Tyr	Asn	Leu	Glu	Ser	Lys	Ser	Leu	Val	Glu	Leu	Val	Phe
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Ser	Gly	Asn	Arg	Leu	Asp	Ile	Leu	Trp	Asn	Asp	Asp	Asp	Asn	Arg
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Tyr	Ile	Ser	Ile	Phe	Lys	Gly	Leu	Lys	Asn	Leu	Thr	Arg	Leu	Asp
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His	Asn	Arg	Ile	Ser	His	Leu	Pro	Ser	Gly	Phe	Leu	Ser	Glu	Val
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<212> DNA
<213> Homo sapiens

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cagcagcatc agcagcccc aggaccgggg aggcacaggt ggcccccacc 300
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gctcacgggg accctgtctc cgagtcgttc gtgcagcgtg tgtaccagcc 550
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<210> 506

<211> 273

<212> PRT

<213> Homo sapiens

<400> 506

Met Arg Gly Ser Gln Glu Val Leu Leu Met Trp Leu Leu Val Leu
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Ala Val Gly Gly Thr Glu His Ala Tyr Arg Pro Gly Arg Arg Val
20 25 30

Cys-Ala-Val-Arg-Ala-His-Gly-Asp-Pro-Val-Ser-Glu-Ser-Phe-Val
35 40 45

Gln Arg Val Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg
50 55 60

Ala Cys Ser Thr Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg
65 70 75

Ser Pro Gly Leu Ala Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro
80 85 90

Gly Trp Lys Arg Thr Ser Gly Leu Pro Gly Ala Cys Gly Ala Ala
95 100 105

Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln Pro
110 115 120

Ser Asp Val Asp Glu Cys Ser Ala Arg Arg Gly Gly Cys Pro Gln
140 145 150

Arg Cys Ile Asn Thr Ala Gly Ser Tyr Trp Cys Gln Cys Trp Glu

155	160	165
Gly His Ser Leu Ser Ala Asp Gly Thr	Leu Cys Val Pro Lys Gly	
170	175	180
Gly Pro Pro Arg Val Ala Pro Asn Pro	Thr Gly Val Asp Ser Ala	
185	190	195
Met Lys Glu Glu Val Gln Arg Leu Gln	Ser Arg Val Asp Leu Leu	
200	205	210
Glu Glu Lys Leu Gln Leu Val Leu Ala	Pro Leu His Ser Leu Ala	
215	220	225
Ser Gln Ala Leu Glu His Gly Leu Pro	Asp Pro Gly Ser Leu Leu	
230	235	240
Val His Ser Phe Gln Gln Leu Gly Arg	Ile Asp Ser Leu Ser Glu	
245	250	255
Gln Ile Ser Phe Leu Glu Glu Gln Leu	Gly Ser Cys Ser Cys Lys	
260	265	270
Lys Asp Ser		

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<211> 1700
<212> DNA
<213> Homo sapiens

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tggcagcaa gttcagcttg gctgggccc ctgtgagggg cttcgcgcta 200
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gaggaacccc aaagccacat ctgtagccag gatgagcagt gtgaatccag 350
gcagccccc ggaccgggaa ggcacaggtg gccccacca cccggaggag 400
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<210> 508
<211> 273
<212> PRT
<213> Homo sapiens

<400> 508
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20 25 30
Cys Ala Val Arg Ala His Gly Asp Pro Val Ser Glu Ser Phe Val
35 40 45

Gln	Arg	Val	Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg
				50					55					60
Ala	Cys	Ser	Thr	Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg
				65				70						75
Ser	Pro	Gly	Leu	Ala	Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro
					80				85					90
Gly	Trp	Lys	Arg	Thr	Ser	Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala
				95					100					105
Ile	Cys	Gln	Pro	Pro	Cys	Arg	Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro
				110					115					120
Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly	Trp	Arg	Gly	Asp	Thr	Cys	Gln
				125					130					135
Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg	Arg	Gly	Gly	Cys	Pro	Gln
				140				145						150
Arg	Cys	Ile	Asn	Thr	Ala	Gly	Ser	Tyr	Trp	Cys	Gln	Cys	Trp	Glu
				155					160					165
Gly	His	Ser	Leu	Ser	Ala	Asp	Gly	Thr	Leu	Cys	Val	Pro	Lys	Gly
				170					175					180
Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	Pro	Thr	Gly	Val	Asp	Ser	Ala
				185				190						195
Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	Gln	Ser	Arg	Val	Asp	Leu	Leu
				200					205					210
Glu	Glu	Lys	Leu	Gln	Leu	Val	Leu	Ala	Pro	Leu	His	Ser	Leu	Ala
					215				220					225
Ser	Gln	Ala	Leu	Glu	His	Gly	Leu	Pro	Asp	Pro	Gly	Ser	Leu	Leu
				230					235					240
Val	His	Ser	Phe	Gln	Gln	Leu	Gly	Arg	Ile	Asp	Ser	Leu	Ser	Glu
				245					250					255
Gln	Ile	Ser	Phe	Leu	Glu	Glu	Gln	Leu	Gly	Ser	Cys	Ser	Cys	Lys
					260				265					270
Lys	Asp	Ser												

<210> 509

<211> 1538

<212> DNA

<213> Homo sapiens

<400> 509

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<210> 510

<211> 273

<212> PRT

<213> Homo sapiens

<400> 510

Met Arg Gly Ser Gln Glu Val Leu Leu Met Trp Leu Leu Val Leu
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Ala Val Gly Gly Thr Glu His Ala Tyr Arg Pro Gly Arg Arg Val
20 25 30

Cys Ala Val Arg Ala His Gly Asp Pro Val Ser Glu Ser Phe Val
35 40 45

Gln Arg Val Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg
50 55 60

Ala Cys Ser Thr Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg
65 70 75

Ser Pro Gly Leu Ala Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro
80 85 90

Gly Trp Lys Arg Thr Ser Gly Leu Pro Gly Ala Cys Gly Ala Ala
95 100 105

Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln Pro
110 115 120

Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly Asp Thr Cys Gln
125 130 135

Ser Asp Val Asp Glu Cys Ser Ala Arg Arg Gly Gly Cys Pro Gln
140 145 150

Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp Cys Gln Cys Trp Glu
155 160 165

Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys Val Pro Lys Gly
170 175 180

Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Val Asp Ser Ala
185 190 195

Met Lys Glu Glu Val Gln Arg Leu Gln Ser Arg Val Asp Leu Leu
200 205 210

Glu Glu Lys Leu Gln Leu Val Leu Ala Pro Leu His Ser Leu Ala
215 220 225

Ser Gln Ala Leu Glu His Gly Leu Pro Asp Pro Gly Ser Leu Leu
230 235 240

Val His Ser Phe Gln Gln Leu Gly Arg Ile Asp Ser Leu Ser Glu
245 250 255

Gln Ile Ser Phe Leu Glu Glu Gln Leu Gly Ser Cys Ser Cys Lys
260 265 270

Lys Asp Ser

<210> 511
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 511
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<210> 512
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 512
ttttccactc ctgtcggtt gg 22

<210> 513
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 513
ggtgacacatt gccagtcaga tgtggatgaa tgcagtgcta ggaggg 46

<210> 514
<211> 2690
<212> DNA
<213> Homo sapiens

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<221> unsure
<222> 2039-2065
<223> unknown base

<400> 514
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cctggctgtt cagctgtctc ctgccccccc tgtatggct gccatgctct 600
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ttttcatcta tttgaaggcg attaaactgt gtctaattgca 2690

<210> 515
<211> 364
<212> PRT
<213> Homo sapiens

<400> 515
Met Ser Val Met Val Val Arg Lys Lys Val Thr Arg Lys Trp Glu
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Lys Leu Pro Gly Arg Asn Thr Phe Cys Cys Asp Gly Arg Val Met

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Met Ala Arg Gln Lys Gly Ile Phe Tyr Leu Thr Leu Phe Leu Ile		
35	40	45
Leu Gly Thr Cys Thr Leu Phe Phe Ala Phe Glu Cys Arg Tyr Leu		
50	55	60
Ala Val Gln Leu Ser Pro Ala Ile Pro Val Phe Ala Ala Met Leu		
65	70	75
Phe Leu Phe Ser Met Ala Thr Leu Leu Arg Thr Ser Phe Ser Asp		
80	85	90
Pro Gly Val Ile Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile		
95	100	105
Glu Met Glu Ile Glu Ala Thr Asn Gly Ala Val Pro Gln Gly Gln		
110	115	120
Arg Pro Pro Pro Arg Ile Lys Asn Phe Gln Ile Asn Asn Gln Ile		
125	130	135
Val Lys Leu Lys Tyr Cys Tyr Thr Cys Lys Ile Phe Arg Pro Pro		
140	145	150
Arg Ala Ser His Cys Ser Ile Cys Asp Asn Cys Val Glu Arg Phe		
155	160	165
Asp His His Cys Pro Trp Val Gly Asn Cys Val Gly Lys Arg Asn		
170	175	180
Tyr Arg Tyr Phe Tyr Leu Phe Ile Leu Ser Leu Ser Leu Thr		
185	190	195
Ile Tyr Val Phe Ala Phe Asn Ile Val Tyr Val Ala Leu Lys Ser		
200	205	210
Leu Lys Ile Gly Phe Leu Glu Thr Leu Lys Glu Thr Pro Gly Thr		
215	220	225
Val Leu Glu Val Leu Ile Cys Phe Phe Thr Leu Trp Ser Val Val		
230	235	240
Gly Leu Thr Gly Phe His Thr Phe Leu Val Ala Leu Asn Gln Thr		
245	250	255
Thr Asn Glu Asp Ile Lys Gly Ser Trp Thr Gly Lys Asn Arg Val		
260	265	270
Gln Asn Pro Tyr Ser His Gly Asn Ile Val Lys Asn Cys Cys Glu		
275	280	285
Val Leu Cys Gly Pro Leu Pro Pro Ser Val Leu Asp Arg Arg Gly		
290	295	300
Ile Leu Pro Leu Glu Glu Ser Gly Ser Arg Pro Pro Ser Thr Gln		

305	310	315
Glu Thr Ser Ser Ser Leu Leu Pro Gln Ser Pro Ala Pro Thr Glu		
320	325	330
His Leu Asn Ser Asn Glu Met Pro Glu Asp Ser Ser Thr Pro Glu		
335	340	345
Glu Met Pro Pro Pro Glu Pro Pro Glu Pro Pro Gln Glu Ala Ala		
350	355	360
Glu Ala Glu Lys		

<210> 516
<211> 255
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 36, 38, 88, 118, 135, 193, 213, 222
<223> unknown base

<400> 516
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ccccctgggtg ggaaattgtg ttggaaagag gaactaccgc tanttctacc 200
tcttcatcct ttntctctcc cnccctcacaa tctatgtctt cgcccttcaac 250
atcg 255

<210> 517
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 517
caacgtgatt tcaaagctgg gctc 24

<210> 518
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 518

gcctcgatc aagaatttcc 20

<210> 519
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 519
agtggaaagtc gacctccc 18

<210> 520
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 520
ctcacctgaa atctctcata gccc 24

<210> 521
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 521
cgcaaaaccc attttgggag caggaattcc aatcatgtct gtgatggtag 50

<210> 522
<211> 1679
<212> DNA
<213> Homo sapiens

<400> 522
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Ser His Ser Thr Cys Leu Thr Glu Ala Cys Ile Arg Val Ala Gly
65 70 75

Lys Ile Leu Glu Ser Leu Asp Arg Gly Val Ser Pro Cys Glu Asp
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Phe Tyr Gln Phe Ser Cys Gly Gly Trp Ile Arg Arg Asn Pro Leu
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Pro Asp Gly Arg Ser Arg Trp Asn Thr Phe Asn Ser Leu Trp Asp
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Gln Asn Gln Ala Ile Leu Lys His Leu Leu Glu Asn Thr Thr Phe
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ttataaaggt ttttggagct gcactgaagc atcttatttt atagtatatac 2700
aaccttttgt ttttaaattt acctgccaag gtagctgaag accttttaga 2750
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tgggacgtt gtcaaaaaaa aaaaaaaaaa aaaaaaaaaa 2840

<210> 612
<211> 352
<212> PRT
<213> Homo Sapien

<400> 612
Met Met Leu Leu Val Gln Gly Ala Cys Cys Ser Asn Gln Trp Leu
1 5 10 15
Ala Ala Val Leu Leu Ser Leu Cys Cys Leu Leu Pro Ser Cys Leu
20 25 30
Pro Ala Gly Gln Ser Val Asp Phe Pro Trp Ala Ala Val Asp Asn
35 40 45
Met Met Val Arg Lys Gly Asp Thr Ala Val Leu Arg Cys Tyr Leu
50 55 60
Glu Asp Gly Ala Ser Lys Gly Ala Trp Leu Asn Arg Ser Ser Ile
65 70 75
Ile Phe Ala Gly Gly Asp Lys Trp Ser Val Asp Pro Arg Val Ser
80 85 90
Ile Ser Thr Leu Asn Lys Arg Asp Tyr Ser Leu Gln Ile Gln Asn
95 100 105
Val Asp Val Thr Asp Asp Gly Pro Tyr Thr Cys Ser Val Gln Thr

110	115	120
Gln His Thr Pro Arg Thr Met Gln Val His Leu Thr Val Gln Val		
125	130	135
Pro Pro Lys Ile Tyr Asp Ile Ser Asn Asp Met Thr Val Asn Glu		
140	145	150
Gly Thr Asn Val Thr Leu Thr Cys Leu Ala Thr Gly Lys Pro Glu		
155	160	165
Pro Ser Ile Ser Trp Arg His Ile Ser Pro Ser Ala Lys Pro Phe		
170	175	180
Glu Asn Gly Gln Tyr Leu Asp Ile Tyr Gly Ile Thr Arg Asp Gln		
185	190	195
Ala Gly Glu Tyr Glu Cys Ser Ala Glu Asn Ala Val Ser Phe Pro		
200	205	210
Asp Val Arg Lys Val Lys Val Val Val Asn Phe Ala Pro Thr Ile		
215	220	225
Gln Glu Ile Lys Ser Gly Thr Val Thr Pro Gly Arg Ser Gly Leu		
230	235	240
Ile Arg Cys Glu Gly Ala Gly Val Pro Pro Pro Ala Phe Glu Trp		
245	250	255
Tyr Lys Gly Glu Lys Lys Leu Phe Asn Gly Gln Gln Gly Ile Ile		
260	265	270
Ile Gln Asn Phe Ser Thr Arg Ser Ile Leu Thr Val Thr Asn Val		
275	280	285
Thr Gln Glu His Phe Gly Asn Tyr Thr Cys Val Ala Ala Asn Lys		
290	295	300
Leu Gly Thr Thr Asn Ala Ser Leu Pro Leu Asn Pro Pro Ser Thr		
305	310	315
Ala Gln Tyr Gly Ile Thr Gly Ser Ala Asp Val Leu Phe Ser Cys		
320	325	330
Trp Tyr Leu Val Leu Thr Leu Ser Ser Phe Thr Ser Ile Phe Tyr		
335	340	345
Leu Lys Asn Ala Ile Leu Gln		
350		
<210> 613		
<211> 1797		
<212> DNA		
<213> Homo Sapien		
<400> 613		
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aaataagaaa attctcaagg aggacgagct cttgagttag acccaacaag 150
ctgctttca ccaaattgca atggagcctt tcgaaatcaa tggccaag 200
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tggagaacac ctggctcagg gtgcattcgag gctgcaagtc ctgcaggccc 450
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tcatggggcc tcctggagcc cagggagta aaggtgactt cgggaggcca 950
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<210> 614

<211> 520

<212> PRT

<213> Homo Sapien

<400> 614

Met Arg Asn Lys Lys Ile Leu Lys Glu Asp Glu Leu Leu Ser Glu
1 5 10 15

Thr Gln Gln Ala Ala Phe His Gln Ile Ala Met Glu Pro Phe Glu
20 25 30

Ile Asn Val Pro Lys Pro Lys Arg Arg Asn Gly Val Asn Phe Ser
35 40 45

Leu Ala Val Val Val Ile Tyr Leu Ile Leu Leu Thr Ala Gly Ala
50 55 60

Gly Leu Leu Val Val Gln Val Leu Asn Leu Gln Ala Arg Leu Arg
65 70 75

Val Leu Glu Met Tyr Phe Leu Asn Asp Thr Leu Ala Ala Glu Asp
80 85 90

Ser Pro Ser Phe Ser Leu Leu Gln Ser Ala His Pro Gly Glu His
95 100 105

Leu Ala Gln Gly Ala Ser Arg Leu Gln Val Leu Gln Ala Gln Leu
110 115 120

Thr Trp Val Arg Val Ser His Glu His Leu Leu Gln Arg Val Asp
125 130 135

Asn Phe Thr Gln Asn Pro Gly Met Phe Arg Ile Lys Gly Glu Gln
140 145 150

Gly Ala Pro Gly Leu Gln Gly His Lys Gly Ala Met Gly Met Pro
155 160 165

Gly Ala Pro Gly Pro Pro Gly Pro Pro Ala Glu Lys Gly Ala Lys
170 175 180

Gly Ala Met Gly Arg Asp Gly Ala Thr Gly Pro Ser Gly Pro Gln

185	190	195
Gly Pro Pro Gly Val Lys Gly Glu Ala	Gly Leu Gln Gly Pro Gln	
200	205	210
Gly Ala Pro Gly Lys Gln Gly Ala Thr	Gly Thr Pro Gly Pro Gln	
215	220	225
Gly Glu Lys Gly Ser Lys Gly Asp Gly	Gly Leu Ile Gly Pro Lys	
230	235	240
Gly Glu Thr Gly Thr Lys Gly Glu Lys	Gly Asp Leu Gly Leu Pro	
245	250	255
Gly Ser Lys Gly Asp Arg Gly Met Lys	Gly Asp Ala Gly Val Met	
260	265	270
Gly Pro Pro Gly Ala Gln Gly Ser Lys	Gly Asp Phe Gly Arg Pro	
275	280	285
Gly Pro Pro Gly Leu Ala Gly Phe Pro	Gly Ala Lys Gly Asp Gln	
290	295	300
Gly Gln Pro Gly Leu Gln Gly Val Pro	Gly Pro Pro Gly Ala Val	
305	310	315
Gly His Pro Gly Ala Lys Gly Glu Pro	Gly Ser Ala Gly Ser Pro	
320	325	330
Gly Arg Ala Gly Leu Pro Gly Ser Pro	Gly Ser Pro Gly Ala Thr	
335	340	345
Gly Leu Lys Gly Ser Lys Gly Asp Thr	Gly Leu Gln Gly Gln	
350	355	360
Gly Arg Lys Gly Glu Ser Gly Val Pro	Gly Pro Ala Gly Val Lys	
365	370	375
Gly Glu Gln Gly Ser Pro Gly Leu Ala	Gly Pro Lys Gly Ala Pro	
380	385	390
Gly Gln Ala Gly Gln Lys Gly Asp Gln	Gly Val Lys Gly Ser Ser	
395	400	405
Gly Glu Gln Gly Val Lys Gly Glu Lys	Gly Glu Arg Gly Glu Asn	
410	415	420
Ser Val Ser Val Arg Ile Val Gly Ser	Ser Asn Arg Gly Arg Ala	
425	430	435
Glu Val Tyr Tyr Ser Gly Thr Trp Gly	Thr Ile Cys Asp Asp Glu	
440	445	450
Trp Gln Asn Ser Asp Ala Ile Val Phe	Cys Arg Met Leu Gly Tyr	
455	460	465
Ser Lys Gly Arg Ala Leu Tyr Lys Val	Gly Ala Gly Thr Gly Gln	

470

475

480

Ile Trp Leu Asp Asn Val Gln Cys Arg Gly Thr Glu Ser Thr Leu
485 490 495

Trp Ser Cys Thr Lys Asn Ser Trp Gly His His Asp Cys Ser His
500 505 510

Glu Glu Asp Ala Gly Val Glu Cys Ser Val
515 520

<210> 615

<211> 647

<212> DNA

<213> Homo Sapien

<400> 615

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agcacacctcct ctcttctcct tttgccaaa ctcacccagt gagtgtgagc 100

attnaagaag catcctctgc caagacccaaa aggaaagaag aaaaagggcc 150

aaaagccaaa atgaaactga tggtaactgt tttcaccatt gggctaactt 200

tgctgctagg agttcaagcc atgcctgcaa atgcctctc ttgctacaga 250

aagatactaa aagatcacaa ctgtcacaac cttccgaaag gagtagctga 300

cctgacacacag attgatgtca atgtccagga tcatttctgg gatgggaagg 350

gatgtgagat gatgtttac tgcaacttca gcgaattgct ctgctgccca 400

aaagacgtt tctttggacc aaagatctct ttcgtgattc cttgcaacaa 450

tcaatgagaa tcttcatgtt ttctggagaa caccattcct gattccac 500

aaactgcact acatcagtat aactgcattt ctgtttcta tatagtgcaa 550

tagagcatac attctataaa ttcttacttg tctaagacaa gttaatctgt 600

gttaaacaag tagtaataaa agttaattca atctaaaaaa aaaaaaaa 647

<210> 616

<211> 98

<212> PRT

<213> Homo Sapien

<400> 616

Met Lys Leu Met Val Leu Val Phe Thr Ile Gly Leu Thr Leu Leu
1 5 10 15

Leu Gly Val Gln Ala Met Pro Ala Asn Arg Leu Ser Cys Tyr Arg
20 25 30

Lys Ile Leu Lys Asp His Asn Cys His Asn Leu Pro Glu Gly Val
35 40 45

Ala Asp Leu Thr Gln Ile Asp Val Asn Val Gln Asp His Phe Trp
50 55 60

Asp Gly Lys Gly Cys Glu Met Ile Cys Tyr Cys Asn Phe Ser Glu
65 70 75

Leu Leu Cys Cys Pro Lys Asp Val Phe Phe Gly Pro Lys Ile Ser
80 85 90

Phe Val Ile Pro Cys Asn Asn Gln
95

<210> 617

<211> 2558

<212> DNA

<213> Homo Sapien

<400> 617

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cagcctgcag ggctgataag cgaggcatta gtgagattga gagagacttt 100

accccgccgt ggtggtttga gggcgccag tagagcagca gcacaggcgc 150

gggtccccggg aggccggctc tgctcgcgcc gagatgttga atctccttca 200

cggaaaccgac tcggctgtgg ccaccgcgcg ccggccgcgc tggctgtcg 250

ctggggcgct ggtgctggcg ggtggcttct ttctcctcgg cttccttcc 300

gggtggttta taaaatcctc caatgaagct actaacatta ctccaaagca 350

taatatgaaa gcatttttgg atgaatttga agctgagaac atcaagaagt 400

tcttacataa ttttacacag ataccacatt tagcaggaac agaacaac 450

tttcagcttg caaagcaaat tcaatccag tggaaagaat ttggccttga 500

ttctgtttag ctatgttctt atgtatgttctt gttgttcttac ccaaataaga 550

ctcatcccaa ctacatctca ataattaatg aagatggaaa tgagatttc 600

aacacatcat tatttgaacc acctcctcca ggatatgaaa atgtttcgga 650

tattgtacca ctttcagtg ctttcttcc tcaaggaatg ccagagggcg 700

atcttagtgta tgttaactat gcacgaactg aagacttctt taaattggaa 750

cgggacatga aaatcaatttgc ctctggaaa attgttatttgc ccagatatgg 800

gaaagtttc agaggaaata aggttaaaaa tgcccagctg gcaggggcca 850

aaggagtcat tctctactcc gaccctgctg actactttgc tcctgggttgc 900

aagtcctatc cagacgggttgc gaatcttccctt ggaggtgggtgc tccagcgttgc 950

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cagcaaatga atatgcttat aggcgtggaa ttgcagaggc tgggtgttt 1050
ccaagtattc ctgttcatcc aattggatac tatgtatgcac agaagctcct 1100
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caaaaagtca agatgcacat ccactctacc aatgaagtga cgagaattta 1250
caatgtgata ggtactctca gaggagcagt ggaaccagac agatatgtca 1300
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aggcctgggg agaagtgaag agacagattt atgttgcagc cttcacagtg 2400

cagggcagctg cagagacttt gagtgaagta gcctaagagg attttttaga 2450
gaatccgtat tgaatttgta tggtatgtca ctcagaaaga atcgtaatgg 2500
gtatatttat aaatttaaa attggatatat ttgaaataaa gttgaatatt 2550
atatataaa 2558

<210> 618
<211> 750
<212> PRT
<213> Homo Sapien

<400> 618
Met Trp Asn Leu Leu His Glu Thr Asp Ser Ala Val Ala Thr Ala
1 5 10 15
Arg Arg Pro Arg Trp Leu Cys Ala Gly Ala Leu Val Leu Ala Gly
20 25 30
Gly Phe Phe Leu Leu Gly Phe Leu Phe Gly Trp Phe Ile Lys Ser
35 40 45
Ser Asn Glu Ala Thr Asn Ile Thr Pro Lys His Asn Met Lys Ala
50 55 60
Phe Leu Asp Glu Leu Lys Ala Glu Asn Ile Lys Lys Phe Leu His
65 70 75
Asn Phe Thr Gln Ile Pro His Leu Ala Gly Thr Glu Gln Asn Phe
80 85 90
Gln Leu Ala Lys Gln Ile Gln Ser Gln Trp Lys Glu Phe Gly Leu
95 100 105
Asp Ser Val Glu Leu Ala His Tyr Asp Val Leu Leu Ser Tyr Pro
110 115 120
Asn Lys Thr His Pro Asn Tyr Ile Ser Ile Ile Asn Glu Asp Gly
125 130 135
Asn Glu Ile Phe Asn Thr Ser Leu Phe Glu Pro Pro Pro Pro Gly
140 145 150
Tyr Glu Asn Val Ser Asp Ile Val Pro Pro Phe Ser Ala Phe Ser
155 160 165
Pro Gln Gly Met Pro Glu Gly Asp Leu Val Tyr Val Asn Tyr Ala
170 175 180
Arg Thr Glu Asp Phe Phe Lys Leu Glu Arg Asp Met Lys Ile Asn
185 190 195
Cys Ser Gly Lys Ile Val Ile Ala Arg Tyr Gly Lys Val Phe Arg
200 205 210

Gly Asn Lys Val Lys Asn Ala Gln Leu Ala Gly Ala Lys Gly Val
215 220 225

Ile Leu Tyr Ser Asp Pro Ala Asp Tyr Phe Ala Pro Gly Val Lys
230 235 240

Ser Tyr Pro Asp Gly Trp Asn Leu Pro Gly Gly Val Gln Arg
245 250 255

Gly Asn Ile Leu Asn Leu Asn Gly Ala Gly Asp Pro Leu Thr Pro
260 265 270

Gly Tyr Pro Ala Asn Glu Tyr Ala Tyr Arg Arg Gly Ile Ala Glu
275 280 285

Ala Val Gly Leu Pro Ser Ile Pro Val His Pro Ile Gly Tyr Tyr
290 295 300

Asp Ala Gln Lys Leu Leu Glu Lys Met Gly Gly Ser Ala Pro Pro
305 310 315

Asp Ser Ser Trp Arg Gly Ser Leu Lys Val Pro Tyr Asn Val Gly
320 325 330

Pro Gly Phe Thr Gly Asn Phe Ser Thr Gln Lys Val Lys Met His
335 340 345

Ile His Ser Thr Asn Glu Val Thr Arg Ile Tyr Asn Val Ile Gly
350 355 360

Thr Leu Arg Gly Ala Val Glu Pro Asp Arg Tyr Val Ile Leu Gly
365 370 375

Gly His Arg Asp Ser Trp Val Phe Gly Gly Ile Asp Pro Gln Ser
380 385 390

Gly Ala Ala Val Val His Glu Ile Val Arg Ser Phe Gly Thr Leu
395 400 405

Lys Lys Glu Gly Trp Arg Pro Arg Arg Thr Ile Leu Phe Ala Ser
410 415 420

Trp Asp Ala Glu Glu Phe Gly Leu Leu Gly Ser Thr Glu Trp Ala
425 430 435

Glu Glu Asn Ser Arg Leu Leu Gln Glu Arg Gly Val Ala Tyr Ile
440 445 450

Asn Ala Asp Ser Ser Ile Glu Gly Asn Tyr Thr Leu Arg Val Asp
455 460 465

Cys Thr Pro Leu Met Tyr Ser Leu Val His Asn Leu Thr Lys Glu
470 475 480

Leu Lys Ser Pro Asp Glu Gly Phe Glu Gly Lys Ser Leu Tyr Glu
485 490 495

Ser Trp Thr Lys Lys Ser Pro Ser Pro Glu Phe Ser Gly Met Pro
500 505 510

Arg Ile Ser Lys Leu Gly Ser Gly Asn Asp Phe Glu Val Phe Phe
515 520 525

Gln Arg Leu Gly Ile Ala Ser Gly Arg Ala Arg Tyr Thr Lys Asn
530 535 540

Trp Glu Thr Asn Lys Phe Ser Gly Tyr Pro Leu Tyr His Ser Val
545 550 555

Tyr Glu Thr Tyr Glu Leu Val Glu Lys Phe Tyr Asp Pro Met Phe
560 565 570

Lys Tyr His Leu Thr Val Ala Gln Val Arg Gly Gly Met Val Phe
575 580 585

Glu Leu Ala Asn Ser Ile Val Leu Pro Phe Asp Cys Arg Asp Tyr
590 595 600

Ala Val Val Leu Arg Lys Tyr Ala Asp Lys Ile Tyr Ser Ile Ser
605 610 615

Met Lys His Pro Gln Glu Met Lys Thr Tyr Ser Val Ser Phe Asp
620 625 630

Ser Leu Phe Ser Ala Val Lys Asn Phe Thr Glu Ile Ala Ser Lys
635 640 645

Phe Ser Glu Arg Leu Gln Asp Phe Asp Lys Ser Asn Pro Ile Val
650 655 660

Leu Arg Met Met Asn Asp Gln Leu Met Phe Leu Glu Arg Ala Phe
665 670 675

Ile Asp Pro Leu Gly Leu Pro Asp Arg Pro Phe Tyr Arg His Val
680 685 690

Ile Tyr Ala Pro Ser Ser His Asn Lys Tyr Ala Gly Glu Ser Phe
695 700 705

Pro Gly Ile Tyr Asp Ala Leu Phe Asp Ile Glu Ser Lys Val Asp
710 715 720

Pro Ser Lys Ala Trp Gly Glu Val Lys Arg Gln Ile Tyr Val Ala
725 730 735

Ala Phe Thr Val Gln Ala Ala Ala Glu Thr Leu Ser Glu Val Ala
740 745 750

<210> 619
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 619
agatgtgaag gtgcagggtgt gccg 24

<210> 620
<211> 25
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 620
gaacatcagc gctcccgta attcc 25

<210> 621
<211> 46
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 621
ccagccttg aatggtacaa aggagagaag aagctttca atggcc 46

<210> 622
<211> 25
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 622
ccaaactcac ccagttagtg tgagc 25

<210> 623
<211> 25
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 623
tgggaaatca ggaatggtgt tctcc 25

<210> 624
<211> 50
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide probe

<400> 624

cttggggca ccattttgt aactttgctg ctaggatgc aagccatgcc 50